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MAIN TRENDS IN SOVIET CAPABILITIES AND POLICIES, 1958-1963

Submitted by the

DIRECTOR OF CENTRAL INTELLIGENCE

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on 23 December 1958. Concurring were The Director of Intelligence and Research, Department of State; the Assistant Chief of Staff for Intelligence, Department of the Army; the Assistant Chief of Naval Operations for Intelligence, Department of the Navy; the Assistant Chief of Staff, Intelligence, USAF; the Director for Intelligence, The Joint Staff; the Assistant to the Secretary of Defense, Special Operations; and the Atomic Energy Commission Representative to the USIB. The Director of the National Security Agency and the Assistant Director, Federal Bureau of Investigation, abstained, the subject being outside of their jurisdiction.

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MAIN TRENDS IN SOVIET CAPABILITIES AND POLICIES, 1958–1963

THE PROBLEM

To review significant developments affecting the USSR's internal political situation, economic developments, military programs, relations with other Bloc states, and foreign policy, and to estimate probable Soviet courses of action through about 1963.[1]

SUMMARY ESTIMATE

1. New tendencies have appeared on the Soviet political scene during the past year. Externally, the lines of conflict with the West have been drawn more sharply once again, and "reduction of tensions" no longer is the major theme of Soviet foreign policy. Internally there has been both in the USSR and in the Bloc an attempt to consolidate and stabilize, to check the pace of change, to curb the expectations and discipline the unruly tendencies aroused among the people by the milder policies of the post-Stalin years. There has been a return to a certain rigor in policy and in ideology. Nevertheless, the changes which affected almost every aspect of Soviet internal and external policy in the years after Stalin's death have for the most part not been reversed. The flexibility and pragmatism of the current leadership continues; innovations in policy may still be forthcoming, particularly in internal affairs.

[1] The reference to a five-year period is approximate. The economic calculations carry through 1965, to conform to the Soviet Seven-Year Plan; some of the political judgments, on the other hand, pertain to periods of less than five years.

Trends in Foreign Policy

2. During the course of the last year there has been a distinctly hardening tone in Soviet foreign policy. It is true that many of the new features introduced after the death of Stalin remain in force. The claim to be pursuing policies in the interest of establishing "peaceful coexistence" is still made; programs of cultural exchange and generally freer contact with the outside world have been continued. Nevertheless, a new militancy and assertiveness in Soviet policy has emerged more and more clearly. This has been most strikingly manifest in the Quemoy and Middle East crises, and in the developing crisis over Berlin.

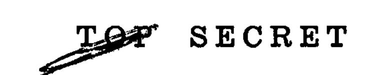
3. The Soviet leaders probably decided that the special emphasis they had given to "peaceful coexistence" and easing of tensions had out-lived its usefulness. It had not had the anticipated effect of weakening Western alliances. Some features of the relaxation line—the new approach to Yugoslavia, the repudiation of Stalin, and the leeway given for some

national autonomy in the Satellites—proved dangerous to Soviet authority in Eastern Europe. A return to a harder course probably seemed desirable on these grounds alone. But at the same time, it appeared justified by the Soviet leaders' belief that, in power terms, there had been an enhancement of the Bloc's position and a decline in that of the West. This belief probably was based in the first place on Soviet weapons advances and scientific achievements. There was also a feeling that the outlook was good for new advances in Bloc economic strength after a period of some difficulty in 1956–1957, while at the same time Western economies were believed to be showing symptoms of economic crisis. Then, too, the Soviet leaders considered that Communist influence was generally growing stronger in underdeveloped countries of Asia, Africa, and the Middle East, while Western influence continued to decline. The confidence of the Soviet leaders that they were entering upon a promising phase in the "struggle against imperialism" has been articulated in a new doctrine, namely, that an irrevocable shift in the relation of forces in the world has taken place to the advantage of the Communist Bloc.

4. This more confident and militant attitude on the part of the Soviet leadership does not mean that it has revised its attitude toward war as an instrument of policy. We continue to believe that the Soviet leaders have no intention of deliberately initiating general war and still wish to avoid serious risks of such a war. They almost certainly believe that, even with the acquisition of long-range missiles capable of striking the US, the scale of damage they would suffer in a general nuclear war would threaten the survival of their regime and society. Moreover, they regard the final victory of Communism as inevitable, and to be achieved mainly through political forms of struggle. The maintenance and further strengthening of great military power is primarily intended to deter a resort to force by the "imperialist" enemy, and to count as a weighty factor in persuading him to submit peacefully to a succession of political reverses as the revolutionary tide advances. Situations might arise, however, in which the Soviets would judge that military force could be used without unacceptable risk or that an imminent threat left them with no recourse but to initiate military action.

5. Currently, while the Soviets still wish to avoid serious risks of general war, they probably believe that the Bloc can increase its pressure on the West and can exploit local situations more vigorously, perhaps even through the use of Bloc armed force, without incurring the same degree of risk as they would have previously. While we have always considered it possible that Bloc forces would be used in overt local aggression if this could be done without much risk of serious involvement with Western forces, we do not believe that the likelihood of such aggression has increased. The Soviets may even believe that the West, also conscious of Soviet gains in military power, will be more and more disinclined to react vigorously. Consequently, they now seem disposed to test Western firmness and probe for weaknesses in the hope that some key position may be abandoned without serious resistance, or that the Western alliance will split over some such issue.

6. In employing pressures against the West, the Soviet leadership doubtless intends to proceed with care. But its preoccupation with calculations of power,



and its evident confidence in the strength of the Communist position, may lead it to underestimate dangers. We believe that if the current attitude of the Communist leaders persists, the danger of war arising from miscalculations will be increased.

7. The USSR has directed a major effort over the last several years toward underdeveloped countries. Its trade and aid programs, propaganda and cultural offensives are intended to displace Western influence, and to orient the policies of such states increasingly toward the Communist Bloc. The Soviet leaders believe that if they can associate the aspirations of underdeveloped peoples with their own cause they can increasingly constrict the political maneuverability of their main enemies, the Western Powers. We believe that the Soviet leaders will continue to regard the effort to develop Communist influence in underdeveloped countries as a major facet of their policy. The USSR's targets among the underdeveloped countries may shift considerably, in accordance with changing opportunities and local setbacks. In those countries where its efforts are most successful, the USSR may increasingly be tempted to support local communists in attempts to seize power. But the Soviets would carefully weigh such gains against the harmful consequences such a policy would inevitably evoke elsewhere. They will probably generally maintain the pose of peaceful cooperation. Since the claim to a "peace-loving" policy is one of the principal elements of the Soviet appeal to the neutralist states, the desire to sustain the plausibility of this claim will impose some restraint on the hard and uncompromising tone of Soviet policy toward the West.

8. The major Soviet effort to extend influence in underdeveloped areas has been made in the Middle East, where the West has important economic and strategic interests. The USSR will continue its policy of economic and military aid to Arab states, hoping to deepen the conflict of Arab nationalism with the West. The initial aim of this policy is to displace Western and increase Soviet influence, and to make Western access to the resources of the area precarious. The Soviet leaders probably also contemplate the eventual achievement of a long-sought Russian goal—land access to the strategic areas of the Middle East. To this end, they will continue to encourage and support such movements as that for an independent pro-Soviet Kurdish state and for a pro-Communist government in Iraq, and will also continue pressures against Iran and Turkey.

9. The Soviets also hope that radical anti-Western nationalism in the Middle East can eventually be given a revolutionary turn toward Communism. While they probably intend for the present to support Nasser's claim to leadership of the Arab nationalist movement, they regard him as a "bourgeois nationalist" whose role is a transitory one. Given a favorable opportunity in some Arab country, they may encourage local Communists to capture the nationalist movement and attempt a seizure of power. An open conflict between Soviet revolutionary policy and Nasser's claim to leadership of the Arab nationalist movement may occur during the period of this estimate.

10. In South Asia and the Far East, Soviet and Chinese Communist policy will probably continue to emphasize governmental contacts, supported by programs of economic aid and cultural exchange



and an active propaganda, with a view to encouraging neutralist policies and where possible openly anti-Western ones. Short of a favorable opportunity to establish Communist power in a key country, the Chinese and Soviets will probably continue to put their main reliance on diplomatic action intended to influence governments rather than to overthrow them, and if possible to associate them with the Bloc against the Western Powers. As regards Africa and Latin America, the Soviet Government apparently views with optimism its prospects for successful diplomatic and economic penetration and, in keeping with a current trend, can be expected to intensify its efforts in these areas.

11. Soviet policy in Europe appears to be aimed more at consolidating the USSR's position in Eastern Europe than at an early expansion of Soviet power beyond the frontiers of the bloc. Soviet policy toward Western Europe is concerned mainly with breaking up the NATO political and military alliance and the defense structure located in that area. This is the main purpose of their maneuvers and proposals aimed at achieving "European security." Apart from the ever-present aim of creating discord among the NATO allies, the more immediate Soviet objectives are to prevent an increase of West German military strength and to prevent the establishment of additional missile bases in Western Europe.

12. The current Soviet diplomatic offensive over the status of Berlin is the most striking example of Khrushchev's activist foreign policy. It appears designed to strengthen the East German regime as well as to stimulate a more receptive atmosphere for other Soviet proposals on Germany and to create divisions among the NATO allies. The Soviet leaders probably intend to be cautious and tactically flexible. We believe that they will try to direct Soviet and East German maneuvering in a manner which will avoid military conflict with the Western allies, while at the same time they will be prepared to take advantage of any signs of weakness on the part of the West, or of inclinations to compromise on major issues. Nevertheless, they have already committed themselves considerably, and we believe that the crisis may be severe, with considerable chance of miscalculation by one or both sides. We do not believe that the Soviets intend to modify the main lines of their policy on the German problem as a whole, but will continue to insist on maintaining the present division of Germany. They regard the preservation of Communist control in East Germany as essential to the maintenance of Communist power in Poland and Eastern Europe as a whole. They hope to consolidate their control of that area and to force Western recognition of the legitimacy and permanence of the Communist regimes there.

13. Soviet disarmament policy, which has at times shown some flexibility, is designed at a minimum to earn credit for the USSR as the leading proponent of "peace." Actual Soviet proposals are aimed mainly at the withdrawal of US military power from Western Europe and other bases, and also at discrediting and inhibiting US reliance on nuclear weapons. While it is possible that the USSR would accept some limitations on its own military posture in order to further these objectives, the Soviets would almost certainly not consent to any very extensive scheme for mutually inspected disarmament. We believe that there is little like-

lihood that the Soviets will desire a broad disarmament agreement strongly enough to move their policy significantly in the direction of the positions now held by the Western Powers.

Intra-Bloc Relations

14. In the last year a major effort has been undertaken to consolidate the unity of Bloc states. The conference of Communist parties in November 1957 launched the so-called antirevisionist campaign in order to curb deviationist tendencies which threatened in 1956 to eliminate Soviet influence from Poland and Hungary. The latter regime is again effectively under Moscow's control and the Gomulka government in Poland, while still preserving Party autonomy and some degree of independence in its internal policy, is showing itself more deferential to Soviet guidance. As compared with Stalin's methods, Moscow's authority in the Satellites will continue to be exercised discreetly out of deference to national sensitivities. In the very long run, we believe there will be a tendency for direct Soviet control over these states to be diluted. Popular dissatisfaction will remain widespread in Eastern Europe, but we believe that the recurrence of popular revolt or of an attempt by a Satellite Communist Party to defy Moscow on vital issues is unlikely at least over the next few years.

15. The scale of China's power and the fact that the Chinese Communist Party has long been organizationally independent of the USSR has made the Sino-Soviet relationship more nearly one of equality. The parallelism of material, strategic, and ideological interests will continue to weigh decisively in favor of cementing the alliance of the two countries, even though frictions over a variety of questions—ideological issues, economic and military support by the USSR to China, competition for influence in other Communist parties—may from time to time make the relationship a sensitive and difficult one. We believe that Communist China will attain over the next several years an increasing influence on general Bloc policy and Communist ideology. However, so long as the struggle against the Western Powers remains the principal concern of both regimes, there is unlikely to be any serious split between them.

Soviet Internal Political Situation

16. Khrushchev's leadership of the Soviet regime does not seem likely to be seriously challenged so long as his health remains vigorous. In the absence of such a challenge, or of any major setback to his policies, he does not seem likely to attempt a return to the terroristic methods of dictatorship employed by Stalin. He appears to recognize that the abandonment of such methods has improved the political climate within the country. Nevertheless, the regime is now again emphasizing its vigilance against dissenters, and would probably not hesitate to use more severely repressive measures if it judged this to be necessary. We believe that, even though the regime continues to alienate many, especially among intellectuals and the youth, it has gained wider acceptance among the population generally. This is due mainly to the relaxation of police terror, to improvements in material standards, and to pride in the power, world position, scientific and economic achievements of the Soviet state.

17. We believe that, although there will be differences within the Soviet leadership over certain issues of policy, and dis-

contents within some groups of the population, the regime will seldom be constrained in major foreign policy decisions by concern for internal political weaknesses. Should Khrushchev die, there would probably again be a period of confused jockeying for the leadership. It is unlikely that this would basically affect the continuity of the regime's policies or its ability to carry them out, but such a period might diminish the authority of the Soviet Party within the Bloc and lead to divisions within and among Communist Parties. Over the very long run, loss of belief in the ideological doctrine the regime imposes, and the increasing influence of professional elements who are not ideologically inclined, may moderate the Soviet outlook. At present, however, we see no prospect of change on the Soviet domestic scene so fundamental as to diminish the motivation, will, or capacity of the regime to project its rapidly growing power externally.

Trends in the Soviet Economy

18. Soviet economic policy continues to aim primarily at a rapid expansion of the economic bases of national power. We believe that the goals laid down in the new Seven-Year Plan, which begins in 1959, are in the main feasible, except for those in agriculture, and that the USSR's gross national product (GNP) will grow at an average annual rate of about six percent during the plan period. Assuming that the US maintains an average rate of growth of about 3.5 percent per year, Soviet GNP in 1965 will be, in dollar terms, about half that of the US, as compared with about 40 percent at present. Despite the smaller size of its economy, the dollar value of the USSR's defense expenditure is about equal to that of the US. Our estimates of the probable trend of military expenditures indicate that by 1963 these will be 45–50 percent greater than in 1957. Since growth of GNP in this period is estimated at 45 percent, the defense burden may thus be slightly heavier in 1963 than at present. Despite this, we estimate that Soviet industrial production will grow over the new plan period at an average annual rate of about nine percent, and that per capita consumption will be about one-third higher in 1965 than it was in 1957.

19. Beyond what they contribute to Soviet military power, the achievements of the Soviet economy have become a vitally important element in the impact which Soviet policy has on the world situation. First is the direct politico-economic impact, arising from the ability of the USSR to initiate and support programs of economic aid or credit to foreign countries, to import goods from countries which would otherwise be hard-pressed to find markets, and to export various materials in quantities which (if the Soviet leaders so desired) could disrupt previously existing patterns of world trade. In this connection, manipulation of prices is a key weapon of the USSR. Second is the political and psychological effect on underdeveloped countries of the successful and rapid economic development achieved by Soviet and Chinese methods. The Soviet and Chinese Communist leaders attach great importance to the possibility of convincing these countries that only by adopting Communist methods and accepting Communist assistance can they too achieve rapid economic growth. Third is the economic impact in a narrower sense, arising inevitably from the appearance in the world of a great new producing and trading unit, the influ-

ence of which could not fail to be great even if it were not deliberately used for political purposes by the Soviet leaders. In all three ways the Soviet economy will present a growing challenge to the Western world.

Developments Affecting the Soviet Military Posture

20. The Soviets will almost certainly continue to believe that they must have a large and diversified military establishment, designed to meet contingencies up to and including general war. Thus they will at all times maintain substantial forces-in-being. Meanwhile, they will press ahead with research and development programs in order to acquire additional capabilities with advanced weapon systems, and if possible to achieve clear military superiority over the US.

21. The present Soviet nuclear weapons stockpile could include weapons in a range of yields from about 2 KT to about 8 MT. The USSR probably possesses sufficient nuclear weapons to support a major attack by its long-range striking forces, but the supply of fissionable materials is probably insufficient for large-scale allocation of such weapons to air defense and tactical uses as well. Since we estimate a substantial and high priority Soviet program for the expansion of fissionable material production and considerable further improvement in nuclear weapons technology, we believe that current limitations will ease during 1959–1963.

22. The principal Soviet military component presently capable of long-range nuclear attack is Long Range Aviation, with about 1,450 bombers (including some convertible tanker-bombers), among which are about 950 jet medium bombers and about 100 to 125 jet and turboprop heavy bombers. This force—best suited for attacking targets in Eurasia and its periphery—is capable of large-scale attacks against the US only through the extensive use of medium bombers on one-way missions. While the size of the long-range bomber force will probably decline gradually, Soviet long-range striking capabilities will increase markedly as the stockpile of nuclear weapons grows, improved bombers are introduced, the readiness and proficiency of the bomber force increases, and especially as the Soviet capacity to deliver nuclear weapons by missiles expands.[2]

23. The USSR will rely increasingly upon missiles as nuclear delivery systems during 1959–1963. Present operational weapons include ground-launched ballistic missiles with ranges up to 700 and probably 1,100 nautical miles (n.m.), as well as bomber-launched air-to-surface missiles suitable for use against ships and

[2] The Assistant Chief of Staff for Intelligence, Department of the Army, does not concur in the last sentence of this paragraph. He agrees that Soviet long-range striking capabilities will increase markedly but believes that this increase cannot be attributed to the introduction of improved bombers of the types and within the strength levels estimated, or to continued training of bomber crews. In his view, the estimated acquisition by the USSR of a substantial ICBM capability, along with the anticipated increase in the Soviet nuclear weapons stockpile, are factors which far outweigh comparatively routine improvements in the existing force. Therefore, he believes that the last sentence of this paragraph should read as follows: "The Soviets can be expected to introduce improved bombers and to increase the readiness and proficiency of Long Range Aviation units, but the size of this force and its significance in a long-range attack role will gradually decline during the period. Nonetheless, Soviet long-range striking capabilities will increase markedly as the Soviet missile delivery capability expands and as the stockpile of nuclear weapons grows."

certain other targets. A few conventional submarines have probably been converted to employ 200 n.m. cruise-type missiles. The USSR will probably achieve a first operational capability with 10 prototype ICBMs of 5,500 n.m. range at some time during 1959. While it is possible that a limited capability with comparatively unproven ICBMs might have been established in 1958, we believe this to be unlikely. We believe that Soviet planners intend to acquire a sizeable ICBM capability as soon as practicable.

24. Air defense capabilities will increase through improvements in the performance characteristics of weapons and equipment, a higher proportion of all-weather fighters, further incorporation of guided missiles in the defenses of numerous targets, and especially through wide employment of semiautomatic air defense control. But the Soviets will continue to have difficulty in opposing very low altitude attack, the air defense system will still be subject to disruption and saturation, and the problem of warning time will become more critical. The USSR will probably not have a weapon system with even limited effectiveness against ballistic missiles until 1963 or later.

25. The ground forces, estimated to have 67 mechanized or motorized rifle divisions, 75 rifle divisions, 23 tank divisions, and 10 airborne divisions, have been extensively modernized and reorganized, in accordance with revised Soviet tactical doctrine which supplements standard tactics and training with those designed for conditions of nuclear warfare. These forces are closely supported by tactical aviation consisting of fighters trained in the ground attack role (in addition to their air defense role) and light and medium bombers trained in ground support bombing techniques. With appropriate air and naval support, Soviet ground forces are capable of conducting large-scale operations on several fronts into peripheral areas, separately or concurrently. The increasing availability of nuclear weapons and guided missiles during 1959–1963 will bring further evolutionary changes, but probably no major alterations in size or deployment of forces. Tactical and naval air units, some of which have already received jet medium bombers, will probably receive new supersonic fighters and bombers. Increasing attention is being paid to the development of airborne forces and air transport capabilities.

26. The present Soviet force of about 440 submarines includes about 260 long-range craft of postwar design and construction. A recent slowdown in construction probably reflects a shift to new types, including nuclear-powered submarines and submarines designed specifically to employ guided missiles. A submarine-launched ballistic missile system with a missile range of about 1,000 n.m. will probably be available for first operational use in 1961–1963. Construction of conventional submarines will probably continue, but the greater complexity of nuclear-powered and missile submarines will probably result in a total annual production rate considerably below the high levels of recent years.

27. *Space Programs.* We believe that the USSR is presently capable of orbiting earth satellites weighing on the order of 5,000 pounds, of launching lunar probes and satellites, and of launching planetary probes to Mars and Venus. Its space program could also include: surveillance satellites and recoverable aeromedical

satellites (1958–1959); "soft landings" by lunar rockets and recoverable manned earth satellites (1959–1960); a manned glide-type high altitude research vehicle (1960–1961); earth satellites weighing as much as 25,000 pounds and manned circumlunar flights (1961–1962). While each of these individual achievements appears feasible as to technical capability and earliest date attainable, we doubt that the USSR could accomplish all of these space flight activities within the time periods specified. If the Soviets desire to do so, an earth satellite could be launched from the territory of Communist China within the next year or so.

Soviet Scientific Achievements

28. The USSR's achievements during the last year, including earth satellite launchings, weapons development, and the scale of its efforts in the IGY program, have strikingly demonstrated that the USSR has acquired a scientific establishment of the first rank. As a result of a sustained effort over the last three decades, the number of graduates in scientific and technical disciplines has steadily increased, research facilities have been greatly expanded, and the quality of Soviet scientific training has improved. Soviet scientists have made marked progress in many areas of fundamental and applied research and in some fields rank among the best in the world. We believe that significant Soviet advances in science and technology are likely to occur in the future with greater frequency than in the past.

DISCUSSION

I. INTERNAL POLITICAL DEVELOPMENTS

Ascendancy of Khrushchev

29. Khrushchev's position as the dominating figure on the Soviet scene appears to be well established. There does not appear to be any other leader or any group able or willing seriously to challenge his position. The Twenty-First Party Congress, scheduled for January 1959, may install still more of his followers in the highest Party organs and further dramatize his personal and ideological authority. Thus, it is likely to be Khrushchev who will preside over the Soviet regime throughout the period of this estimate, assuming that he retains his health and vigor. However, Khrushchev's policies will probably continue to arouse concern among certain elements of the Party, and an attempt to reduce his authority cannot be entirely excluded.

30. Although he is in a sense Stalin's heir, Khrushchev will almost certainly not rule as Stalin ruled. The style of his leadership is characteristic of his own personality, and is reflected in a suitable myth: the new leader is a gregarious man of the people, and remains "close to the masses;" he is a rough and practical-minded man, but his political judgment is unerring, and like Lenin he commands the Party by the persuasive force of his arguments rather than by the fear he inspires. This image probably reflects the manner in which Khrushchev prefers to rule; he fancies himself as the popular boss-persuader. His method of leadership is also consistent with the needs of the post-Stalin period. Consequently, he will be disposed to avoid the use of terror as a main instrument of rule, though the police will be kept strong and employed as necessary. Errors in judgment, even opposition on some issues, will not generally be treated as political crimes. The Central Committee and Party Congresses will probably continue to meet regularly. There will be greater representation of outlying regions at the center, and more concern displayed for local interests. In short, the consolidation of Khrushchev's power will probably not mean a return to dictatorship of the Stalinist type.

31. Moreover, there will continue to be pressures on Khrushchev which will work to limit his exercise of dictatorial power. Since his authority, unlike Stalin's, does not rest on the use of terror, Khrushchev must to a far greater degree seek to win and hold the support of groups within the Party apparatus. Inner Party maneuverings are complicated by the fact that greater account must be taken of popular sentiment than was true under Stalin; Khrushchev's position in particular is exposed because he is identified with economic and social programs which have stimulated popular desires for further material improvement and he is thus personally accountable for maintaining a good record of performance in relation to promises. At some point within the period of this estimate Khrushchev may face the dilemma either of tolerating radically opposing views within the leadership, thus imperiling his control, or of attempting to suppress opposition tendencies, at the cost of a return to terror. If, although we think it unlikely, a serious challenge to Khrushchev's personal position should arise, not all of the allies and associates who supported him during his rise to power would necessarily remain loyal to him.

32. The ebullient personality of Khrushchev has been considered by some observers as likely to give Soviet foreign and domestic policy an erratic and unstable course. We think this is unlikely. His public manner is probably in large part that of the conscious actor-politician, intended to confound his opponents and to impart vigor to the execution of his policies. His advocacy of certain unexpected departures in Soviet policies in recent years was probably not unrelated to efforts to steal a march on his competitors in the suc-

cession struggle. We think that the substance, as distinguished from the style, of Soviet policy is likely to be little affected by Khrushchev's idiosyncracies.

Role of the Party

33. The victory of Khrushchev has been paralleled by an increasing use of the Party apparatus in all aspects of control and administration. At the top, in the Party Presidium, the majority now consists of Khrushchev's followers who were elevated from the Secretariat and of important regional Party secretaries; the former overwhelming representation of men in leading government positions has been drastically reduced.[3] Party personalities either preside over or play important roles in the regional economic councils which now administer the economy in place of the former central ministries. Local Party secretaries have also been brought into the district military councils, giving the Party a closer hold on military administration. In rural areas measures have been taken to give the local Party more effective control over agriculture.

34. This increased role of the Party at all levels of administration was probably intended in part to insure Khrushchev's firm control over the country, since the Party apparatus was his principal instrument of power. But the reforms in industry and agriculture which he has sponsored in recent years — all involving decentralization and a fuller reliance on local initiative — have also made closer Party supervision more necessary in order to combat local violations of the Party's economic directives. Under Khrushchev much more will depend on morale and discipline within the Party at local levels than has been the case in the past.

[3] At present, 11 of the 14 full members of the Party's Presidium hold key posts in the Party apparatus (including 9 of the 10 secretaries), and only 3 other than Khrushchev himself hold leading governmental positions. By contrast, at the time of Malenkov's removal in 1955, of the 9 full members of the Presidium 8 were in leading governmental positions, and only Khrushchev was a full time official in the Party apparatus.

35. The increase in authority of the Party apparatus has taken place at the expense of the various interest groupings which compete for place and influence behind the façade of totalitarian Party unity. The professional military opposes the system of political commissars and, despite Zhukov's removal for attempting to reduce Party control over the armed forces, this attitude will persist. Government administrators and economic managers will continue to resent what they regard as the bumbling interference of Party hacks in their technical spheres. Intellectuals — writers, artists, scientists, students — will continue to press for a greater area of freedom and a loosening of the Party's ideological strait-jacket. While each of these groups has a stake in the success and prosperity of the Soviet state, each has also professional interests to further. One purpose of Khrushchev in elevating the Party apparatus is to prevent the hardening of these professional interests into self-contained, autonomous groups which might ultimately have independent political importance.

36. It has been suggested by some Western observers that, as the Soviet economy matures and becomes more complex, as the needs of society come to be met by more specialized administrative skills, as education is extended and diversified, the totalitarian character of the regime will be diluted. The dictator or the Party as the single focus of power, it has been argued, will give way to autonomy in areas of less immediate political significance. Even in the political field, institutional arrangements will have to be found for representing many diverse interest groups: it was possible to see signs of such a tendency in the post-Stalin period of confusion occasioned by the succession struggle. On occasion, the Central Committee of the Party became an arena of political decision with factional and policy differences represented within it. In the post-Stalin period the rulers have also seemed to think it necessary to take account of public opinion generally in framing their policies. Such tendencies to dilute arbitrary power and to broaden participation in policy-

making beyond the narrow circle of the Party Presidium may reappear at the time of Khrushchev's death or at some other period of weakened authority. For the present, however, Khrushchev's restoration of one-man leadership, and his manner of achieving it through the Party apparatus, has maintained Soviet society firmly in the totalitarian mold.

Issues in Soviet Politics

37. This development does not mean that there will not continue to be group pressures and much pulling and hauling over issues of policy. Even under one-man leadership the normal play of politics is not adjourned, though it may become less visible. There are a number of issues over which lines are likely to be drawn behind the façade of unity. For example, whatever the degree of its practical success, the economic reorganization scheme is laden with political significance. It calls for the removal of a host of bureaucrats from Moscow to the provinces, a fate little relished by the migrants. The reorganization could lead to a regionalism which would be a new source of tension, although the revitalized Party must, in Khrushchev's calculation, serve as the cement which binds the periphery to the center. This reorganization, like the ideologically controversial measures Khrushchev has sponsored in agriculture, has yet to be fully proved in practice. Khrushchev may yet be driven to some agile maneuvering to defend his innovations.

38. Also among the issues likely to affect inner Party politics are those related to Soviet economic growth. The growth achieved may not be high enough to attain all the goals — high rates of investment, increase in agricultural output, rising living standards, modern armaments — which now have priority in Party programs. Cutting back on any of these objectives could lead to dispute. The leaders of the armed forces, for example, would not willingly accept either a substantial cut in the military budget or reduced investment for industries of military significance. The Party apparatus itself, influenced by the lower ranks where there is direct contact with popular pressures, would be reluctant to sacrifice prospective gains in living standards. Failure to achieve satisfactory rates of growth could produce resistance to further outlays in foreign aid or bring into question Khrushchev's economic reorganization.

39. There are likewise some purely political issues which may have divisive effects. The Soviet ruling groups would be reluctant to see a return to the systematic use of terror. The question of the control of the secret police is of widespread concern and would become paramount in case Khrushchev's mastery were ever placed in doubt. There must be some in positions of influence who are concerned with what seems to them the downgrading of Soviet authority in the Bloc, as represented by toleration of the Gomulka regime in Poland and the increasing weight of China in ideological and policy matters. There may be others who question Khrushchev's policy of alliance with "national liberation movements" in underdeveloped areas on the ground that such a policy increases the danger of war arising from clashes with Western interests, and involves support of bourgeois movements which cannot be used to promote Communism.

40. Khrushchev's late arrival at supreme power (he is now 64) will make the prospect of a new succession struggle a lively, if seldom discussed, factor in inner Party maneuverings. As he grows older it will be difficult to separate policy issues like those discussed above from the succession question. Thus major tensions will probably continue to be present within the Soviet body politic despite the stabilization of power at the top, and these will from time to time affect the face which Soviet policy presents to the outside world.

Attitudes in Soviet Society

41. The post-Stalin leadership set out to effect a basic improvement in the attitude of the Soviet people toward the regime. The relaxation of police terror and the greater attention to living standards served this end. The greatest material gains so far have been made by the peasantry, but a continuing improvement of urban standards over the next

few years, particularly in housing, is also promised. In terms of its standing with the population as a whole, the regime is probably stronger now than it was five years ago. We believe that the measures which have produced this improvement will be continued.

42. Soviet society continues nevertheless to be marked by substantial areas of discontent. There exists, and will probably continue to exist, considerable disaffection among intellectuals, particularly among Soviet writers and university students. It is significant because it touches a highly vulnerable area, the regime's ideological authority. Intellectuals are aware of the discrepancies between the Marxist-Leninist ideal and Soviet reality and they also resent the regime's encroachments on private life and professional interests. They doubt that adequate safeguards exist to prevent the repetition of Stalinist terror. They feel contempt for Party careerists. They resent restrictions on travel abroad, and limitations on access to Western publications and broadcasts. These discontents do not take the form of active opposition but are limited for the most part to a retreat into an inner world so as to minimize the degree of involvement with the Party and the state.

43. There continues also to be dissidence among some national minorities. The peoples of the old Baltic states harbor vigorous Russophobe feelings. They feel strongly that they are exploited and that their homelands lag far behind their prewar cultural and living standards. A considerable residue of anti-Russian sentiment is also to be found in the western Ukraine, as well as in Georgia, where the downgrading of Stalin and the loss of its former privileged status also rankle. It seems probable, furthermore, that many of the two million Jews in the Soviet Union would like to emigrate. Because many Jews hold key professional positions and have connections abroad, the regime probably regards them as a continuing security problem.

44. We do not believe that any of the discontents and tensions described above are likely to have major political significance during the period of this estimate, although they will place restrictions on the regime's ability to mobilize the population for its own purposes. The regime will deal with them by its well-practiced methods of concession and suppression. Moreover, its success in identifying with itself the sense of national pride and power, extending even to chauvinism, is a formidable asset with which to counter discontent. The Soviet people are well aware that under Communist rule Russia has been transformed from a backward, agrarian, defeated nation into the world's second most powerful state, perhaps, they would like to believe, the most powerful. The Russian tradition takes it for granted that government is by nature tyrannical, arbitrary, and exacting. If it fulfills the aspiration to national power, it can be forgiven much.

The Longer View

45. Have the processes of change which have operated so broadly and visibly in Soviet society since the death of Stalin opened up perspectives for more fundamental change in the long run? It seems undeniable that such a possibility exists. One source of such change could be a failure by the totalitarian Party repeatedly to renew its vitality; this might result in a dilution of its monopoly of power in favor of other interest groups upon which the functioning of the society will increasingly depend as its industrialization proceeds. Another could be inability of the Party to maintain its intellectual and ideological authority as awareness of the gap between reality and ideology increases, a process which will be accelerated as contacts with the West are extended. We consider that the effect of factors like these cannot now be reckoned to have any assured outcome. At present, we see no prospect of change on the Soviet domestic scene so fundamental as to diminish the motivation, will, or capacity of the regime to project its rapidly growing power externally.

II. TRENDS IN THE SOVIET ECONOMY

General

46. The performance of the Soviet economy has become a vitally important element in the impact which Soviet policy has on the world situation. This importance derives from an extraordinary record of growth over the last decade, a growth which is certain to continue at a rate faster than that of the US economy. The strength of the Soviet economy has provided a foundation of great national power for Soviet policy, first and foremost military power: the USSR has had available the means to maintain military programs and to develop advanced weapons on a scale which no other state except the US can undertake.

47. However, apart from its function as a basis for Soviet military power, there are three other ways in which the impact of the Soviet economy on the world situation is already observable to a greater or lesser degree, and is certain to increase. First is the direct politico-economic impact, arising from the ability of the USSR to initiate and support programs of economic aid or credit to foreign countries, to import goods from countries which would otherwise be hard-pressed to find markets, and to export various materials in quantities which (if the Soviet leaders so desired) could disrupt previously existing patterns of world trade. In this connection, manipulation of prices is a key weapon of the USSR. Second is the political and psychological effect on underdeveloped countries, achieved through the exhibition of successful and rapid economic development by Communist methods, and through the encouragement of such countries to do likewise under Soviet advice — the Soviet leaders attach great importance to this aspect. Third is the economic impact in a narrower sense, arising inevitably from the appearance in the world of a great new producing and trading unit, the influence of which could not fail to be great even if it were not deliberately used for political purposes by the Soviet leaders. In all three ways the Soviet economy will present a growing challenge to the Western world.

Shifts in Economic Policy

48. Soviet economic policy continues to be marked by a spirit of innovation and experimentation. With the announcement early in 1958 of the program to abolish the Machine Tractor Stations, the present leadership added another to the series of major measures of change it has undertaken in recent years. Most of the steps taken, in particular the reorganization scheme of 1957 involving the dissolution of central ministries and their replacement by 104 regional economic councils, have figured as issues in the political struggle for Stalin's succession. Khrushchev's rise to power was probably due at least in part to his initiative in sponsoring novel measures to cope with the problems of economic policy with which the regime found itself confronted at Stalin's death.

49. These problems arose in part because of the great growth and increasing complexity of the Soviet economic system and the failure of the Soviet leadership to adapt its planning and control mechanisms to these developments. Difficulties were aggravated during Stalin's later years by his unwillingness to countenance any departures from the pattern of economic policy laid down during the early Five-Year Plans. Concentration on heavy industry led to imbalances in the economy; agriculture and housing were denied investment and generally neglected. When the Soviet leaders turned to reforming measures after 1953, the problems which immediately confronted them included the increased complexity of planning and administration as industrial output became more varied and specialized, the need to employ labor and material resources more efficiently as these came to be more fully utilized, higher investment requirements to maintain gains in output, and the necessity to provide greater material incentives in order to improve labor discipline and obtain higher labor productivity.

50. The attack on these problems has involved a variety of measures over the last five years. First, there was a change in the political atmosphere — the easing of police terror and penalties for economic dereliction. The intention was to improve the conditions for managerial initiative in enterprises and to aid the campaign for faster growth of labor productivity. Second, changes in investment priorities were made in order to alleviate the desperate situation in housing, to lift agricultural output out of its stagnation, and to overcome the failure of basic materials output to keep pace with the requirements of fabricating industry. These changes also reflected the regime's desire to improve living conditions, in the expectation that political and economic benefits would flow from improved attitudes on the part of the Soviet population. Finally, in 1957–1958, the regime undertook a sweeping reform of economic administration in an effort to overcome the impediments which bureaucracy had come to put in the way of efficient operation of the economy.

51. The economic reorganization scheme has been described as a decentralization plan, but it was this in only a limited sense. There never was any intention to weaken the basic apparatus of centralized planning or to give up the political determination of economic priorities in favor of decision-making at lower levels according to economic criteria alone. The plan aimed at eliminating the top-heavy vertical administration of the Moscow industrial ministries. It was hoped that this would result in a more efficient response to central plan directives. The theory was that, by allowing a greater degree of local initiative and by placing the administrators in the regions close to the enterprises they were supervising, the implementing of decisions would be more realistic and less wasteful.

52. The results obtained thus far probably have included some gains of the kind anticipated — better use of local resources, fuller use of transportation facilities, less delay on routine decisions. But the new system contains dangers of its own, which have been heavily attacked in the Soviet press under the name of "localism." To the extent that freedom to dispose of resources locally has been allowed it has been difficult to prevent decisions from being taken in local rather than national interests. There evidently has been a tendency, aside from some cases of outright corruption, for the local authorities to divert resources to plans of their own for the greater development of their regions, sometimes to the neglect of centrally imposed plans and priorities. The chronic problem of obtaining conformity to economic goals imposed by political fiat from the center, with little regard for local desires or the economic criteria which appeal to the managers of enterprises, seems to persist. We believe, therefore, that the regime will continue to experiment with new techniques of economic planning and administration.

53. The Soviet leadership under Khrushchev seems confident nevertheless that it has already overcome the difficulties which emerged in 1956 when cumulative mistakes in planning caused shortages in basic materials and forced abandonment of the Sixth Five-Year Plan. The regime has announced a new Seven-Year Plan which again sets ambitious goals. It reaffirms the traditional emphases upon the rapid growth of heavy industry, and upon maintaining large military programs. But the Plan also provides for other key programs to which the regime has committed itself in recent years. The Soviet leaders intend to go forward with increasing living standards. Programs of lesser cost will include maintaining Soviet power in Eastern Europe by supporting the Satellite economies as needed, assisting the industrialization of Communist China, and backing up Soviet political objectives in underdeveloped countries with trade and aid programs. The main question affecting Soviet economic policy over the next five years is whether these multiple priorities, all of which bear on the competitive struggle with the West in which the Soviet leaders see themselves involved, can be met simultaneously. On the whole, we believe that the Seven-Year Plan production goals are feasible, except in agriculture, but that their achievement will impose considerable strains on the economy, and that some programs may have to be modified as the plan period proceeds.

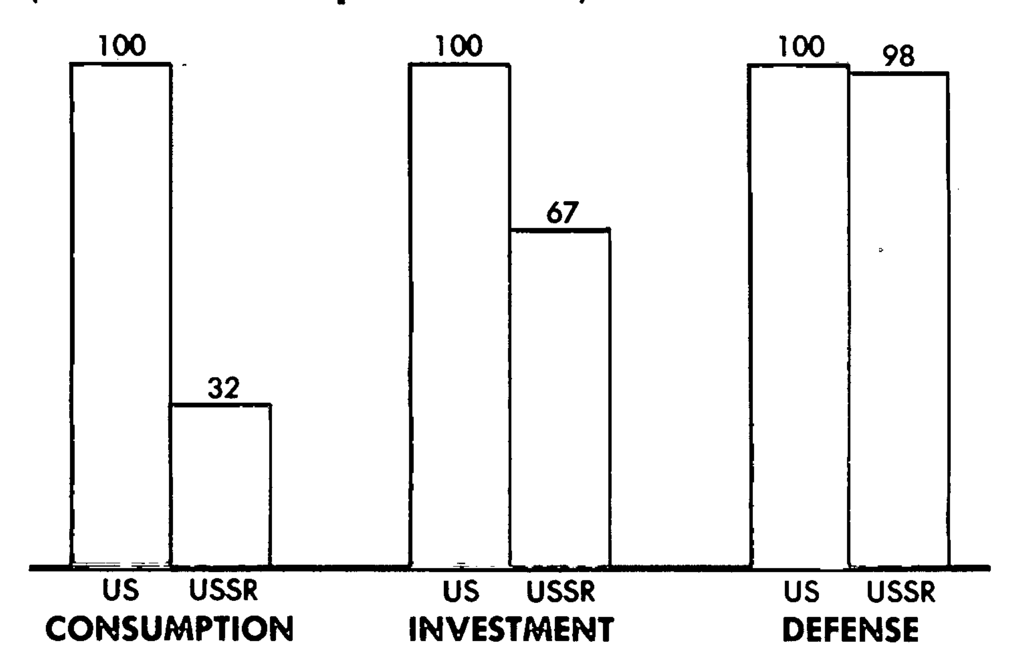
Prospects for Economic Growth

54. The Soviet economy will grow less rapidly during the next seven years than it did during the last seven. Soviet gross national product (GNP) increased at an average annual rate close to 7 percent from 1950 to 1955, and at about 6.5 percent from 1955 to 1957. This slight slackening in the rate of growth obscures a decline in the growth of industrial production from an annual rate of about 11 percent to about 9 percent, and a nearly offsetting acceleration in the growth of agriculture. Because of favorable weather and a large agricultural output the rate of growth of GNP in 1958 has apparently again risen somewhat. Over the period 1958–1965 we believe that GNP will probably grow at an average annual rate of about 6 percent. At this figure, assuming that the US achieves an average annual rate of 3.5 percent,[4] Soviet GNP in 1965 will be, in dollar terms, about half that of the US, as compared with about 40 percent of US GNP at present.

[4] This projected rate of the US is approximately midway between the postwar rate and the long run trend.

55. As Soviet GNP continues to gain in size relative to US GNP, the differences between Soviet and US use of national product will continue to be marked. With a GNP only about two-fifths the size of US GNP, the dollar value of Soviet defense expenditure is approximately equal to that of the US.[5] Soviet investment, in dollar values currently around two-thirds as great as US investment, will grow more rapidly than Soviet GNP during the next seven years, and will approach still closer the absolute size of US investment. Investment in industry alone was about 90 percent of US investment in industry (manufacturing, mining, and utilities) in 1957. The dollar value of Soviet total consumption is less than one-third that of the US. Soviet consumption, on the other hand, will increase at a slower rate than total GNP during the 1958–1965 period, thus becoming a smaller share of the latter. (See graph below.)

[5] The dollar value referred to here was derived by valuing manpower at appropriate US pay rates and other items of military significance at comparable US costs.



56. The slightly reduced pace of Soviet economic growth anticipated in this estimate reflects increasing difficulties in obtaining labor, material, and machinery. The economy may be better able to cope with such difficulties as a result of recent changes in the planning, organization, and implementation of economic activity, but the benefits from these changes will be offset by other factors. Agriculture will tend to grow more slowly following the period of sharp output gains of 1954–1958. Industrial growth will be affected by rising investment requirements per unit of additional output and by continuing difficulties in supplying adequate quantities of key material inputs, especially ferrous metals. In addition, there will be a reduced rate of growth of the labor force, owing to the growing impact of the decline in the birth rate during World War II, at a time when the introduction of a shorter work week in industry may increase the need for new industrial workers.

Trends in Defense Expenditures[6]

57. Our estimates of the probable trend of military expenditures through 1963 indicate a defense allocation in that year approximately 45–50 percent greater than the 1957 level. Achievement of the estimated 45 percent growth in Soviet GNP would mean that the defense burden, taken in the aggregate, would be slightly heavier in 1963 than at present, though still not as heavy as in the years immediately prior to 1957. Defense requirements will impose burdensome claims upon various types of resources needed for investment and economic growth.

58. Most of the increase in defense expenditures will result from increasing allocations to more costly aircraft, to guided missiles, military research and development, and nuclear weapons. These programs together probably account for about one-third of total expenditures at present. By 1963 they are expected to require about twice as much in resources as at present and to account for about 45 percent of total defense programs.

[6] Estimates of Soviet defense expenditures are subject to a wider margin of error than other statistical estimates in this section and should therefore be used with greater caution.

59. Soviet defense expenditures in recent years, when converted into dollar values, appear to be of roughly the same magnitude as US defense expenditures. As stated above, the USSR, with a much smaller GNP than the US, produces military goods and services with a dollar value roughly the same. It is able to do this primarily because in the USSR military end-items are less expensive, relative to consumption items, than they are in the US, and because the average level of real pay and subsistence provided Soviet military personnel is much lower than in the US.

Industrial Prospects

60. The eventual aim of overtaking US industry in per capita production continues to dominate Soviet planning for industry. Shifts in the allocation of resources during the period 1953–1955 in support of the economic innovations of the post-Stalin regime — first Malenkov's broad consumer goods program and then Khrushchev's agricultural consumer goods and housing programs — contributed to a moderate decrease in the rate of growth of heavy industry. Heavy industry was expected to benefit, however, from a new program of automation and re-equipment and from changes in industrial management, planning and control, introduced during this period. But by 1956 the failure to provide sufficient new capacity in the raw materials industries caused a severe shortage of industrial raw materials, particularly steel, coal, and cement.

61. The leadership's response to this situation during the last two years has been to abandon the Sixth Five-Year Plan, cut back industrial output goals for 1957 and subsequently for 1958, and to order the formulation of a new Seven-Year Plan for the period 1959–1965. It also launched a remedial investment program which was to increase capacity in raw materials industries while still maintaining ambitious programs in agriculture and housing. The reorganization plan of July 1957, as already indicated, was also intended to insure a better utilization of materials by permitting greater leeway for local decisions.

62. Industrial growth was claimed by the Soviets to be 10 percent for 1957 and for the first three quarters of 1958, and while this claim was probably somewhat overstated, it indicates that the reduced goals of 7.0 and 7.5 percent for these years were set too low. These rates of increase, however, obscure the continuing poor performance of some basic industries, particularly ferrous metallurgy. Moreover, in spite of the remedial investment program, additions to production capacity in these industries continued to fall short of planned goals in 1957, and probably in 1958 also. Production goals for 1965 in the basic materials industries indicate that they must continue to receive priority treatment if planned rates of increases are to be achieved. Substantial overfulfillment of presently planned goals in these industries, although not likely to occur, would be necessary to approach the 11 percent annual increases in industrial production which we believe were achieved during the Fifth Five-Year Plan (1951–1955). However, we believe that the 8.7 percent average annual rate of growth given in the present version of the New Seven-Year Plan is feasible. (See table below for a list of some Soviet industrial output goals.)

63. One of the factors affecting future industrial growth will be the impact of raw material constraints on the machinery and metal fabricating sector. Despite the current effort being directed into raw materials it is expected that the rate of growth of metals will fall from the 10.5 percent annual average of the past seven years to about 8 or 9 percent per year for the period 1958–1965. This slower growth of metals output will have a restraining effect on the growth of the machinery and metal fabricating sector. Even so, the Seven-Year Plan targets in many of the metals industries are impressive even in terms of past Soviet accomplishments. The announced 1965 goal for steel, stated as 86 to 91 million tons, suggests uncertainty as to what can be achieved in this industry. Even the lower figure represents an increase of 31 million tons over the present level of output, as compared with a gain of 24 million tons in 1951–1958.

SOVIET INDUSTRIAL PRODUCTION 1957–1965

Product	Unit [1]	US–USSR Outputs in 1957: US	USSR [2]	USSR as Percent of US	USSR 1965 Goals
Electric Power	Billion KWH	754	210	28	500–520
Crude Oil	Million Tons	354	98	28	230–240
Coal	Million Tons	469	463	99	596–609
Crude Steel	Million Tons	102	51	50	86–91
Primary Copper	Thousand Tons	1,319	440	33	946
Primary Aluminum	Thousand Tons	1,500	550	37	1,830
Cement	Million Tons	50	29	58	75–81
Machine Tools	Thousand Units	62	130	210	140–200
Generators for Steam & Hydraulic Turbines	Million KW	10.8	5.6	52	17.5–18.4
Commercial Vehicles	Thousand Units	1,100	382	35	750–856 [3]
Sulfuric Acid	Thousand Tons (100%)	14,700	4,569	31	10,176 [4]
Cotton Fabrics	Million Meters	8,748	5,600	64	7,700–8,000
Leather Footwear	Million Pairs	594	315	53	515
Washing Machines	Thousand Units	3,589	377	10	4,048

[1] All tonnage figures in metric tons.

[2] Except for primary aluminum and copper, which are estimated, the production data are based on official Soviet announcements and are accepted as valid.

[3] Includes automobiles.

[4] Since no official goal has been published, this figure represents our estimate.

64. The slower natural increase of the labor force during the period of this estimate may also be a limiting factor on the rate of Soviet industrial growth. Population increase and a continuation of past school programs would provide an estimated increase of only about seven million men in the total civilian labor force over the next seven years. The Seven-Year Plan requires an increase of about 11 million men in the nonagricultural labor force. Moreover, the regime is heavily committed to reduce hours of work and has reaffirmed such an intention in its Seven-Year Plan announcement. The goals for gains in productivity reflect the regime's recognition that the labor supply is now a limitation on the rate of economic expansion. One of the aims of current programs in agriculture is clearly to increase productivity in this area so as to permit the release of workers to industry. Moreover, recent and prospective changes in the educational system are in part designed to free additional young people for employment in industry; these changes might release as many as one million to the nonagricultural labor force over the seven-year period.

Agricultural Prospects

65. In the years 1954–1958 agriculture — which had remained largely stagnant during Stalin's last years — underwent rapid development. This was due both to the programs for cultivating the new lands and planting corn, and to other less spectacular but no less important measures such as increased farm supplies and greater financial incentives. In the new lands the weather was better than average. No slackening of attention is apparent in the Seven-Year Plan and the relatively high levels of agricultural investments of the last several years are scheduled to continue. However, the growth rate gains in agricultural output of recent years cannot be maintained. Total acreage is expected to increase during the next seven years at a rate only about one-fourth of the earlier period. Most of the future increase will have to come from increased production per unit of land. This is more difficult to achieve, particularly since the unfavorable effect of indiscriminate acreage expansion will manifest itself. Nevertheless, the existing potential is by no means exhausted, and a number of measures such as soil improvement will be undertaken.

66. Recent organizational changes and better prices in agriculture probably have softened the critical attitude of the peasant toward the regime, as have other earlier measures which were focused upon tax, product procurement, and income conditions in agriculture. State control over agricultural activity, however, has not been weakened. The central organs continue to determine state procurement goals even though the enterprise manager in Soviet agriculture is likely to exercise more choice over what and how he will produce. Collective farm control over most of the machinery formerly under the MTS may also prove of some significance in increasing output by eliminating conflict between the collective farm chairman and the MTS director concerning day-to-day operations of the collective farm. Proposals have also been advanced recently to introduce more rigorous cost accountability on the collective farms. If carried out, these procedures, taken in conjunction with the gradual introduction of a guaranteed cash wage, will increase the efficiency of collective farm operations, and perhaps permit the release of farm workers to industry. Moreover, the improvement in peasant attitudes brought about by the abolition of the MTS and the effect of 1958 reforms in raising the income of the poorer collective farms will probably have a positive effect on peasant work habits.

67. The Seven-Year Plan carries an unrealistic goal of a 70 percent increase in agriculture. We believe that the actual increase will be less than half of this. Dissatisfaction with the progress of agriculture is likely to lead the regime to continue its experimenting in the agricultural field.

Trends in Consumption

68. The Soviet consumer will not enjoy as rapid an increase in over-all consumption during the next seven years as he did during the last seven, when per capita consumption increased by approximately 40 percent. This will be true despite recently announced pro-

grams to provide more meat, milk, housing, furniture, and clothing. But per capita consumption is still likely to be as much as one-third higher in 1965 than it was in 1957, with some qualitative improvement in consumer goods. However, except probably in milk production, the USSR will not succeed in its announced effort to match US per capita consumption of meat and other selected food products in the time periods set. Even if it is able to do so eventually, other areas of consumption, such as consumer durable goods and housing, will continue to lag far behind US levels.

69. The increase in the level of consumption anticipated in this estimate should be adequate to keep the population reasonably well satisfied with the regime's efforts to provide higher living standards. The regime will continue to exploit the propaganda value of rising consumption levels. The dollar value of Soviet total consumption is less than one-third that of US consumption, and on a per capita basis only about one-fourth that of the US. The Soviet consumer occupies only about one-fifth the housing space enjoyed by the US consumer. Khrushchev's much publicized housing program will continue to receive a rising share of investment for the next two years and then may level off at a volume of construction which should provide an increase of about one-third in per capita living space over the next seven years.

70. The post-Stalin leadership has sought to make the most out of increases in consumption by selectively raising the money incomes of particular groups in the population while holding retail prices relatively stable. Although both rural and urban workers have received increases of approximately 18 percent in total real income during the period 1953–1957, rural workers gained relative to urban workers during the earlier part of the period and urban workers received the greater share of their increase during the latter part of the period. In industry, wages and salaries have been adjusted with the aim of relating incomes more closely to productivity in different occupations and in different industries. Continuation of this policy during the period of this estimate should bring considerable improvement to the Soviet wage structure.

Foreign Trade

71. Soviet foreign trade policy will continue to subordinate short-run economic gains to the furtherance of national political objectives. Trade will continue to be utilized in an effort to strengthen Satellite ties with the Soviet Union, to provide capital goods for Chinese Communist industrialization, and to promote Soviet relationships with underdeveloped non-Bloc countries. Trade with the industrialized countries of the non-Bloc world will probably grow somewhat, and economic considerations will be the governing factor affecting such trade.

72. The maintenance of the Soviet empire in Eastern Europe and the alliance with Communist China, as well as trade policy toward the underdeveloped areas, will require exports of raw materials and capital equipment which otherwise would be used by the USSR to further its own economic growth, but the burden imposed upon the domestic economy by this policy will not affect significantly the planned rate of Soviet internal economic growth. On the other hand, internal forces affecting domestic growth will provide incentive for an increase of Soviet trade with the West, although such trade will continue to account for only about one-fourth of total Soviet foreign trade. The aggregate impact of Soviet foreign trade upon the domestic economy is slight because exports and imports together amount to only approximately eight billion dollars or less than five percent of Soviet GNP. However, the export of scarce resources or the import of advanced design machinery and equipment for use as prototypes can be of greater significance to the economy than the total value of foreign trade would suggest.

73. Future developments in Soviet-Satellite trade will be influenced by the outcome of recent attempts to increase intra-Bloc economic integration and specialization but the effect will probably not be large. Although Bloc economic integration is expected to in-

crease, the benefits will be of greater importance to the smaller Satellite economies than to the USSR. The Soviet Union imports machinery from the Satellites, though the contribution to the Soviet economy of machinery imports from the Satellites will continue to be offset by the necessity of exporting scarce Soviet raw materials. The Soviet export surplus in its trade with the European Satellites will be reduced if repayments of credits granted to Satellite countries, scheduled to begin in 1960, are carried out.

III. TRENDS IN SOVIET SCIENCE AND TECHNOLOGY

74. The USSR has for many years placed great emphasis on science and technology with a view to creating a corps of superior personnel and building a scientific establishment adequate to support its aspirations to national power. Soviet scientific effort has been focused preponderantly on the building of a strong industrial base and the development of modern weapons. As a consequence, the USSR's achievements in areas of critical military and industrial significance are comparable to, and in some cases exceed, those of the US. During the past year, the Soviet Union has strikingly demonstrated to the world its maturity in science and technology. Earth satellite launchings, striking progress in weapons development, and fundamental research of military and economic significance attest to a rapidly increasing Soviet capability which presents a growing challenge to the Western World.

75. We believe that the rate of advance of Soviet science is accelerating in consequence of the building over the past three decades of a broad scientific and technical foundation. During this period, the number of graduates of scientific and technical curricula has constantly increased, research facilities have been greatly expanded, and the quality of Soviet scientific training has improved. The size of the Soviet research and development effort, in absolute terms, has been smaller than that of the US. However, the Soviet effort has been far more highly concentrated on fields related to national power, while research in consumer products has been proportionately much less. Soviet expenditures on science and technology are increasing yearly and probably permit full utilization of new personnel and facilities. Consequently, significant Soviet advances in science and technology are likely to occur in the future with greater frequency than in the past.

76. The reorganization of economic administration in 1957 has probably been accompanied by improved planning and coordination of science, especially in the formulation of long-range and nation-wide scientific policies. New scientific coordinating bodies have been established with authority to cut across administrative barriers, and planning is being centralized under the State Planning Committee, which heretofore has had only a passive role in science planning. Scientists are being given more voice in planning and Soviet policies in science and technology are likely to reflect their point of view more fully. Concurrently with the centralization of planning and coordination, operational authority over research is being decentralized and directors of institutes are being given more administrative authority.

77. Applied research will continue to receive great emphasis in the USSR, although the importance of adequate fundamental research is well understood at the planning level. Highest priority will continue to be accorded to military-industrial research and development, but the rapid expansion of Soviet scientific resources will now permit greater flexibility. Greater individual initiative within assigned tasks of research will probably be encouraged, basic research in new fields undertaken, and somewhat more scientific and technical effort allocated to the consumer sector of the economy.

Scientific Manpower, Training and Facilities

78. The number of scientifically and technically trained people in the Soviet Union has increased approximately three-fold in the postwar period. We estimate that as of mid-1958, about 1,625,000 graduates of university-level scientific and technical curricula are actually employed in all scientific and technical fields, about 15 percent more than in the US. Although US graduations in scientific and technical fields are expected to increase, the USSR will continue to enjoy a numerical advantage. Based on current trends, by 1963 the USSR will probably have nearly 35 percent more graduates employed in scientific and technical work than the US,

as indicated by the accompanying table.[7] It should be noted that the bulk of Soviet numerical superiority will continue to derive from graduates employed in industrial and agricultural production. The number of Soviet scientists engaged in research and teaching in the physical sciences has remained substantially smaller than in the US, and is perhaps half the US total at present. However, Soviet emphasis on research in military and basic industrial fields probably results in a near numerical equality between the two countries in scientific manpower devoted to these critical activities.

COMPARISON OF MAJOR SCIENTIFIC GROUPS, USSR AND US [7]
(in thousands)

Estimated Numbers of Graduates of Higher Educational Institutions Employed in Scientific and Technical Fields *

	Mid-1958		Mid-1963	
	USSR	US	USSR	US
Engineering	856	500	1,227	630
Agricultural Sciences	228	163	368	183
Health Sciences	382	452	448	492
Physical Sciences	108	184	144	276
Biological Sciences	52	80	79	112
Total	1,626	1,379	2,266	1,693

Estimated Numbers of Soviet Kandidats and American Ph.D.'s in Scientific and Technical Fields **

	Mid-1958	
	USSR	US
Engineering	27	6
Agricultural Sciences	8	5
Health Sciences	17	1
Physical Sciences	18	34
Biological Sciences	8	18
Total	78	64

* Estimates of the current total of Soviet scientific personnel are believed to be correct within plus or minus 10 percent. The probable error of certain groups, however, may exceed this amount.

** In the physical sciences, engineering, and the health sciences, the quality of the Kandidat degree is roughly equivalent to or slightly below that of the US Ph.D. In agricultural and biological sciences it is closer to that of a US Master's degree.

79. In the postwar period the quality of Soviet scientific training has been high. Engineering training, while not as broad as that given an engineer in the West, is good within the particular field of specialization. Some deficiencies continue in the practical and experimental aspects of training, particularly in some fields of biology and engineering. Recent changes in higher school curricula, intended to overcome these deficiencies, include requirements for more laboratory and independent experimental work outside the classroom, as well as a plan to allow superior students to follow individual study schedules.

[7] Such numerical comparisons provide only a rough measure of relative scientific and technical strength, since: (a) the professional categories are not precisely equivalent in the two countries; (b) the figures do not reflect the broader US supply of scientific and technical personnel who hold no degrees; and (c) they give no weight to qualitative differences in training and experience.

The USSR is not as well supplied as the Western industrial nations with nonprofessional technicians, mechanics, and maintenance men. Shortages of skilled technicians will persist, but the number available should increase significantly as a result of the high proportion of scientific and technical subjects in the lower grades and the current emphasis on specialized training after lower school.

80. Soviet scientific facilities, in terms of financial support, organizational direction, and number and quality of laboratories, are generally adequate for the utilization of scientific talent. In a few fields the USSR has facilities which are comparable, if not superior, to corresponding installations in the West. The continued expansion of these facilities, as well as a Soviet attempt to establish a broader geographic base for research activities, is indicated by the establishment of new scientific centers in Siberia. Announced plans call for completion in 1960 of a new "scientific city" near Novosibirsk, consisting of 13 research institutes and a university now under construction. Another center near Irkutsk, consisting of eight research institutes, is scheduled for completion in 1965. The regime is making a major effort to attract competent scientific personnel to the new centers by creating favorable living conditions, establishing excellent research facilities, and assigning certain eminent scientists to these locations.

81. Some shortages of complex research instruments are believed to exist, particularly in low priority fields, but they probably do not significantly hamper research programs of major importance. For example, although the US has a considerably larger number of high speed electronic computers than the USSR, the number of computer hours actually utilized for high priority research is probably nearly the same since Soviet computers are not called upon to serve routine business and government functions. Although Soviet-produced equipment is often the equal of foreign-produced equipment and occasionally its superior, the USSR will probably continue to import equipment for reasons of expediency. During the next five years the USSR will continue to improve its capabilities in scientific instrumentation. Increasing numbers of highly qualified engineers will probably be made available for the development and production of scientific equipment, and an increasing amount of equipment will reflect original design concepts. However, we believe that the West will continue to lead in the development of scientific equipment except in fields given very high priority by the Soviets.

82. The Satellites have made significant scientific contributions to Soviet technological development in only a few areas, principally in optics, electrical measuring instruments, communications equipment, synthetic fibers and pharmaceuticals. We expect an increase in Soviet use of Satellite resources in some basic theoretical and experimental fields. The Council for Economic Mutual Assistance (CEMA) recently expanded the scope of its activities to include greater coordination and exchange in research and development activities. CEMA member-nations are assigned major research, development, and production responsibilities for the entire Soviet Bloc in specified fields.

83. The USSR has become progressively less dependent on Western research and development. Nevertheless, the Soviet leaders have adopted a policy of acknowledging foreign achievement and encouraging maximum use of foreign experience. The USSR presently has an outstanding program for collection and dissemination of scientific and technical information. The All-Union Institute of Scientific and Technical Information of the Academy of Sciences publishes and circulates extensive abstracts of foreign journals and, at least in high priority fields, Soviet scientists have access to the full range of scientific research published throughout the world. Evidence of Soviet work on such new methods as machine translation, data searching, and data processing suggests that Soviet information handling facilities probably will improve during this period.

84. The Soviets have evidently profited from espionage in a few key fields. However, on an over-all basis the performance of Soviet sci-

ence — especially the number of original concepts and discoveries — reinforces our belief that the aggregate contribution of espionage to Soviet scientific progress has been far less important than the USSR's own achievements.

85. The USSR is clearly anxious to take advantage of the possibilities in international scientific exchange. Soviet participation in international scientific meetings and conferences has increased markedly during the last year, primarily in connection with the International Geophysical Year (IGY), but involving other scientific fields as well. The Soviet IGY program has been well-executed and comparable to the US program in scope. For the most part, the Soviets probably will live up to their agreements to exchange IGY information, but are likely to withhold the results of related investigations outside the formal IGY program. They are believed to have withheld considerable data derived from their earth satellites. The USSR probably will continue its active participation in the various international committees and organizations which are planning to extend programs begun under the IGY.

Soviet Capabilities in Major Scientific Fields

86. The USSR's achievements during the last year, including earth satellite launchings, weapons development, and the magnitude of its efforts in the IGY program, provide impressive evidence of the present high level of Soviet scientific capability. Animated by a spirit of intense competition with the US, Soviet scientists have made striking progress over the last year in many areas of fundamental and applied research. In mathematics, many fields of physics, and a few fields of chemistry, fundamental research appears to be comparable in quality to that performed in leading nations of the West. In some fields, Soviet scientists are among the best in the world; their potential for wholly new discoveries must be considered equal to that of Western scientists.

87. *Space program.*[8] The establishment of the Interagency Commission for Interplanetary Communications, announced by the USSR in April 1955, indicated the existence of a program with manned interplanetary travel as its stated ultimate objective. The program is supported by extensive Soviet research efforts in a number of related fields, including rocket propulsion, electronics, meteorology, space medicine, astrobiology, astrophysics, and geophysics. Activities to the present appear to be directed toward the collection of scientific data and experience to provide the basis for future space programs, and to advance basic knowledge in the above fields. Since some satellite vehicles have probably employed basic ICBM hardware and some future space vehicles may also utilize ICBM components, the two programs are to some extent complementary.

88. Soviet successes with ballistic missiles and earth satellites point to a considerable capability for early accomplishments in space. We believe that the USSR is presently capable of orbiting earth satellites weighing on the order of 5,000 pounds, of launching lunar probes and satellites and of launching planetary probes to Mars and Venus. Its space program could also include: surveillance satellites and recoverable aeromedical satellites (1958–1959); "soft landings" by lunar rockets and recoverable manned earth satellites (1959–1960); a manned glide-type high altitude research vehicle (1960–1961); earth satellites weighing as much as 25,000 pounds and manned circumlunar flights (1961–1962). While each individual achievement appears feasible as to technical capability and earliest date attainable, we doubt that the USSR could accomplish all of these space flight activities within the time periods specified.

89. Communist China has announced its intention to launch an earth satellite, and there are indications that Chinese personnel are studying rocket technology with Soviet assistance. The Chinese would value highly the

[8] For a more detailed discussion of the Soviet space program, see NIE 11-5-58, "Soviet Capabilities in Guided Missiles and Space Vehicles," 19 August 1958 (TOP SECRET).

political and propaganda gains resulting from a launching, and we believe that an attempt in China is a possibility within the next year or so. Using Soviet equipment, and with Soviet direction throughout the project, the Chinese Communists could probably perform a successful earth satellite launching in about one or two years after initiation of the project. The USSR itself probably has the capability, with about six months' preparation, to place an earth satellite in orbit from Chinese territory. There is as yet, however, no firm evidence of the initiation of any projects to launch earth satellites from the territory of Communist China.

90. *Nonmilitary applications of atomic energy.* There is evidence of a further reduction in the ambitious Soviet nuclear power program announced in February 1956 as part of the Sixth Five-Year Plan. At that time, the USSR set a mid-1960 goal of 2,000–2,500 megawatts of nuclear-electric generating capacity. However, a Soviet reply to a UN questionnaire in March 1957 described a program which could produce a total capacity of about 1,400 megawatts by that date. Recent statements by Soviet officials indicate a planned capacity of about 700 megawatts in mid-1960. We estimate that an additional 200 megawatts or more could be obtained from dual-purpose reactors installed at plutonium production sites, giving the USSR a total of at least 900 megawatts by mid-1960 if the latest plans materialize. Continued references to the 2,000–2,500 megawatt goal by leading Soviet authorities indicate that the progressive decrease in nuclear generating capacity planned for 1960 reflects a slippage in Soviet plans rather than a reduction in the Soviet nuclear power program. The USSR is conducting extensive research on controlled thermonuclear reactions.

91. Soviet employment of radioactive isotopes and radiological techniques in medical, chemical, metallurgical, biological, and agricultural research lags behind that of the US by up to five years. While the USSR has been actively employing these means in research investigations, little originality has been displayed and only recently has the quality of this type of research shown improvement.

92. Despite this lag, the USSR has initiated a sizable technical assistance program in nuclear energy within the Bloc and has offered aid in this field to a number of non-Bloc countries. To encourage collaboration among nuclear scientists within the Bloc, the USSR established in 1956 a Joint Nuclear Research Institute near Moscow. Although the USSR is a member of International Atomic Energy Agency, its attitude toward the agency has been passive. Future Soviet activities outside of the Sino-Soviet Bloc probably will continue to be largely limited to unilateral offers of aid to non-Bloc nations. However, visits by Soviet scientists to Western nations and Soviet participation in international conferences may be increased.

93. *Physics and mathematics.* Some Soviet scientists in the various fields of physics and mathematics are the equals of those in the leading nations of the West. Greatest capabilities are exhibited in theoretical mathematics and physics, high-energy nuclear physics, low temperature physics, solid state physics, and acoustics. Research during this period will probably stress a number of studies related to the Soviet missile and space programs, and will also include theoretical antigravity investigations, work in plasma physics, and elaboration of present theories of ion, photon, and free radical propulsion. Of great aid to research in physics and mathematics is the considerable Soviet capability in the design, development and application of computers with larger memory capacity and increased operation speeds, as well as small computers suitable for mass production and usable in small computation centers.

94. *Geophysics.* Soviet performance in the geophysical sciences is believed to be generally equal to that of the US, and superior in some fields, particularly polar geophysics. The large and comprehensive Soviet IGY program is expected to have a considerable effect on the development of geophysics in the USSR. The orbiting of earth satellites carrying heavy payloads of complex instrumentation probably has already given the USSR a lead in these methods of upper atmosphere and space research. The USSR probably will

make advances comparable to those of the US in meteorology and oceanography. It will probably continue to be among the world leaders in seismology, gravimetry, geomagnetism and geoelectricity, and will add to its already considerable achievement in permafrost research and geochemical prospecting.

95. *Chemistry and metallurgy.* The USSR lags behind the US in the magnitude and level of research effort in most fields of chemistry and metallurgy; however, Soviet research in certain areas continues to be of high caliber. A major strength will continue to be in the theoretical aspects of some fields of chemistry. There will probably be a major expansion of all chemical research, with particular emphasis on fields where the West now leads, such as in petrochemicals, new plastic materials, and synthetic fibers. In metallurgy, research will be especially pushed in the high temperature field and in those areas of metallurgy related to solid state physics, particularly in semiconductors and thermoelectric power generation.

96. *Medical sciences.* With some exceptions, Soviet medical research is still behind that of the US. Soviet research assets, however, are expanding rapidly and will continue to be concentrated in areas of high economic and military priority. The Soviets are conducting an advanced program in space medicine and astrobiology. The availability of rocket vehicles and effective propulsion systems has enabled the Soviets to use animals to test life-sustaining systems in space and under space equivalent conditions to a greater degree than has been possible in the US. We believe that they lead the US in rocket flight physiology, studies of possible forms of life on other planets, and in the techniques and equipment for recovery of test subjects from extreme altitudes. However, there are no indications that they have conducted prolonged space equivalent work similar to the US manned balloon experiments. The USSR will expand its intensive research program in the control of human behavior, especially in conditioning techniques. In addition, the Soviets will probably maintain their lead in research on the effects of radiation on the nervous system. It is possible that they will attain the lead in the study of the effects of cosmic radiation on organisms.

97. *Biological and agricultural sciences.* There has been a notable improvement in the quality of Soviet research in certain areas of the biological and agricultural sciences. Except in a few specific fields, however, the USSR still lags behind most Western countries in these sciences. Although Lysenko retains some limited political support, ideological theories are probably no longer permitted to interfere with sound research in biology and agriculture, and Soviet genetics research should improve markedly. We believe that agricultural research and development will receive increasing support, which should assist the Soviet effort to increase food supplies.

98. *Industrial technology.* For the immediate future, we estimate that the general level of Soviet industrial technology will remain below that of the US. However, the most modern Soviet plants are already on a par with those in the US, and the average level of heavy industrial technology will probably improve. Striking progress has been made over the last few years in the theory and practice of automation. Additional semiautomatic and possibly fully automatic production lines will be established during the period of this estimate. There will probably be increased emphasis on engineering process research and on shortening the lead times necessary to bring developed items into production. However, research and technology in consumer goods fields will continue to lag far behind that of the US.

IV. DEVELOPMENTS AFFECTING THE SOVIET MILITARY POSTURE

SOVIET MILITARY THINKING AND POLICY

Major Objectives of Military Policy

99. Soviet military thinking and policy since the end of World War II, and particularly since the death of Stalin, have been strongly influenced by a growing appreciation of the devastation inherent in nuclear war and of the threat to the USSR's objectives and security posed by Western nuclear capabilities. The Soviet leaders have made strong efforts to build a substantial offensive nuclear capability of their own and to improve their air defenses; indeed, to build up a broad range of offensive and defensive capabilities, both nuclear and nonnuclear. At the same time, Soviet political activity has aimed at reducing the military and political usefulness of US nuclear capabilities by attempting to make US overseas bases untenable and to increase the inhibitions attached to any use of nuclear weapons.

100. We believe that despite these efforts the Soviet leaders appreciate that if they launched a general war at present, even with surprise nuclear attacks, the USSR would suffer unacceptable damage from US nuclear retaliation. On the other hand, they are probably confident that their own nuclear capabilities, even though not as great as those of the US, have grown to the point where they constitute a powerful military deterrent to the US. It is therefore probable that in the Soviet view both sides are now militarily deterred from deliberately initiating an all-out nuclear war or from reacting to any crisis in a manner which would gravely risk such a war, unless vital national interests at home or abroad were considered to be in jeopardy.

101. The Soviets probably see this situation as a great improvement over the relation of forces which existed some years ago. Nevertheless, we believe that the Soviet leaders will continue to seek ways to achieve, if possible, a clear military superiority over the US. To this end they will continue their intensive weapons research and development, particularly in such fields as long-range missiles, aircraft and missile-launching submarines capable of attacking the continental US, air defense weapons and associated equipment. But despite further improvement in Soviet capabilities over the next five years, we believe that the USSR will still not become confident that it can attack the US without receiving unacceptable damage in return. This judgment assumes the maintenance and improvement of US armed strength and the absence of an unforeseen Soviet technological breakthrough of major military significance.

102. While strengthening their capability for waging general war, the Soviets will endeavor to maintain forces which they consider adequate to insure military superiority in situations short of general war. To the extent that Western inhibitions against vigorous reaction in local situations are increased by the USSR's growing capability for general war, superiority in forces for local conflict will enable the Soviets to exert greater political pressure in local situations, and even give them greater freedom to use force in such situations. In sum, the Soviet leaders will view large deterrent and other military capabilities as an essential support to their foreign policy and to the USSR's status as a leading world power.

Soviet Attitudes Toward Limited and General War

103. As indicated elsewhere (Chapter VI, paragraphs 224–227) we believe that the Soviet leaders do not at present intend to pursue their objectives by employing their own forces in warfare, limited or general. But they will also recognize that, particularly in consequence of the policies they are pursuing to compel a retraction of Western power by political means, situations might arise in which the use of force on a local scale would seem essential to one side or the other. In such situations the Soviets would prefer to provide logistic and other support for local operations in which only non-Soviet forces participated directly. Their objectives in such operations would be limited, and they would seek to avoid direct Soviet involvement, to limit the geo-

graphic area of engagement, and to prevent the use of nuclear weapons by either side.

104. Soviet planners probably consider, however, that such limitations might be impossible in some instances, and that encounters between their own and Western forces might result. They would prefer to minimize the amount of force employed in such situations, in order to limit the scale of conflict and the degree of their own involvement as much as possible. For example, they would almost certainly wish to avoid the use of nuclear weapons. In deciding whether to employ their own forces in any particular local situation the Soviets would have to balance the risk of provoking a train of counteractions, possibly leading to general war, against the stakes involved in the area of local conflict. They probably believe that the West's military posture and doctrine rest increasingly upon the use of nuclear weapons, even in limited wars. But they probably also view their own nuclear deterrent capabilities as already having raised the threshold at which the West would react in such a manner.

105. It is impossible to forecast how the Soviets would behave in all the situations of local conflict which might arise. Despite the confidence they evidently now have in the power of their own deterrent, we believe that they would handle such situations with the greatest caution. They would realize that the dangers of miscalculation would mount as each side increased the scale of its involvement. Therefore we believe that the Soviets would seek to prevent any crisis from developing in such a way as to leave themselves only a choice between accepting a serious reverse and taking action which would substantially increase the likelihood of general war. The Soviet leaders would almost certainly not decide to precipitate general war unless they concluded that conceding a position to the West would sooner or later threaten the survival of their regime.

106. We believe that the Soviets recognize that very great advantages would accrue to the side striking the first blow in an all-out nuclear war, and that therefore, in the event that they decided on general war, they would themselves initiate it by strategic nuclear attacks. The primary objective of such attacks would be to destroy or neutralize Western nuclear retaliatory capabilities—or at any rate to achieve the maximum possible reduction in the weight of Western retaliation that would have to be met by Soviet air defenses. To an extent consistent with this first priority, other key US war-making capabilities would probably also be attacked.

107. The outbreak of general war would probably find the USSR at a state of military readiness beyond that of ordinary peacetime, but short of what Soviet planners might believe best for the most rapid exertion of their total military effort. During any local war or crisis which they viewed as likely to become increasingly serious, Soviet planners would almost certainly prepare against the possibility of a general conflict. However, they would not want to push preparations so far as to convince the US that general war was imminent, lest this lead the US to strike the first all-out nuclear blow. The probability of increased Western readiness during a crisis, together with the normally widespread deployment of Western nuclear striking forces in the US and overseas, would make it doubtful that the Soviets could count on achieving surprise against all of these forces, but they would almost certainly attempt to do so.

108. Soviet recognition of the importance of surprise in modern military operations has been reflected in articles and statements over the last few years, but it is evident that Soviet military theoreticians do not regard surprise as the decisive factor in the outcome of a major war between great powers. In fact, they hold that in such a war the strategic attack capabilities of both sides might expend themselves and leave eventual victory to the side with the greatest residual strength, capacity for recovery, and ability to occupy territory. They visualize an important role for their ground, tactical air, and naval forces in a general war, which in their view would probably become a protracted war of attrition.[9]

[9] The Assistant Chief of Staff, Intelligence, USAF, believes that as written this paragraph does not correctly reflect the Soviet judgment of the role of surprise in a general war. He believes it is evident that Soviet military theoreticians consider surprise probably would be the decisive factor in the outcome of a war between great powers.

109. In the event of general war, Soviet ground, tactical air, and naval forces would probably be launched in major campaigns against Europe, the Middle East, and the Far East, in order to defeat those Western forces within reach and to seize military objectives in those areas as well as their industrial and economic resources. The USSR would probably plan to commit its ready forces to an offensive against NATO, especially through Western Germany, as soon as possible consistent with its attempt to achieve surprise for its initial assaults against the US, overseas US and allied nuclear bases, and naval striking forces. Campaigns in other areas would be of lesser priority, but we believe that in a general war situation they would probably be initiated with little delay.

110. In addition to participation in inital strategic attacks and support of other major Soviet campaigns, the major offensive effort of the Soviet Navy in general war would be the worldwide interdiction of Western sea communications and reinforcement, intended to isolate overseas theaters from the US. The major defensive effort of Soviet naval forces would be to prevent Western carrier strikes and submarine-launched missile attacks against Bloc targets.

Policy on Size and Types of Forces

111. In assessing the size and types of military forces which would best fulfill their major objectives, the Soviets will almost certainly continue to believe that they must keep a large and diversified military establishment, designed to meet various contingencies, up to and including general war. While they will work to acquire additional capabilities with advanced weapon systems, they will at all times maintain substantial forces-in-being. Nevertheless, there will be increasing competition among military requirements of different types, and between military requirements and the demands of highly important nonmilitary programs, resulting in part from the cost and complexity of new weapons and equipment. In deciding whether to produce complex new weapon systems in quantity, the USSR will probably apply increasingly severe tests as to whether these would add greatly to current capabilities or tend significantly to alter the world balance of forces, and as to whether costs were justified by likely periods of use before obsolescence. There may therefore be a growing tendency in some fields to make do with existing equipment until significantly advanced weapons can be acquired.

112. We also believe that for several years the Soviet leaders have been interested in finding ways to reduce the number of men under arms. The reasons for doing this will continue to apply, and in the future may become more compelling. An important factor will be the pressure imposed by a shortage of manpower for the rapidly growing Soviet economy (see Chapter II, paragraph 64). Other reasons include the desire for economies in order to ease the burden of increasing costs of new equipment, and the propaganda value of force reductions. The importance of the last of these factors has been evident in the USSR's well-publicized announcements of military personnel cuts over the last three years. Reductions amounting to over 1.8 million men in the 1955–1957 period have been claimed, and in January 1958 a further planned reduction of 300,000 men was announced, bringing the total to more than 2.1 millions.

113. On the basis of Soviet conscription trends, published labor statistics, and other indirect data, we believe that there has in fact been a substantial reduction in the number of men in service since the peak reached during the Korean War. A considerable portion of this reduction apparently occurred prior to the first Soviet announcement of cuts in 1955. Reductions are known to have been made in nonessential supporting and administrative elements. It is probable that other reductions were accomplished by cutting down the strength of certain units and by the transfer of labor troops from military to nonmilitary status. On the other hand, we have acquired no evidence of the deactivation of any major units and we are fairly certain that most of the units withdrawn from satellite areas in recent years were merely moved to locations within the USSR.

114. The evidence suggests that in their announcements the Soviets took propaganda advantage of fairly substantial reductions made after the Korean War, and that additional reductions were in fact begun but were delayed or cancelled entirely. The apparent failure to carry out the announced cuts may have been due in part to increased tension in the satellites, and in the world situation generally, beginning in the fall of 1956. It may also have resulted in part from Soviet discovery that reductions in some elements were to a large extent offset by the increased need for technically-qualified personnel to serve new and more complex equipment.

115. On the basis of available order-of-battle information, we estimate present Soviet military manpower strength at somewhat more than 4 million men, of whom about 2,650,000 are in ground force units, about 835,000 are in the air forces (including about 110,000 naval aviation personnel), about 765,000 are in naval units, and about 75,000 are in air defense control and warning. In addition, we carry about 400,000 men in border guard and internal security forces.[10] While there has been no reliable evidence of reductions over the last year, we do not exclude the possibility that the Soviet leaders believe that some additional cuts can be made without danger to Soviet security. But we think it unlikely that in the present state of the Bloc's relations with the West further reductions of substantial size would be made.

116. *Military policy toward other bloc nations.* The Soviet leaders view the East European area as vital to the military posture of the USSR, both as an extension of the defense perimeter of the homeland and as a base for offensive power; Communist China and North Korea similarly strengthen the strategic position of the USSR. The Soviets will therefore continue to provide substantial military aid to the Satellite and Chinese Communist military establishments, including weapons, equipment, and training assistance. They will continue their efforts under the Warsaw Pact to develop and maintain reliable and effective forces in the East European Satellites, but they probably do not contemplate any significant expansion of these forces. It is unlikely that Soviet planners would count on East European forces in general to make an important contribution to Soviet military operations, except perhaps in air defense and in maintaining security for lines of communication.

117. The Soviets probably regard the increasing military capabilities of Communist China with mixed feelings. While Chinese military strength is a valuable addition to the power of the Communist Bloc, as this strength grows it will also give China increasing weight within the Bloc. It will be many years before the Chinese have a large and modern arms industry of their own, a development the Soviets might view with misgivings in any case, and in the interim the Chinese will press for Soviet aid to effect a costly modernization of their forces. We believe that the Soviets will probably try to restrain the pace of Chinese military development in order to prevent the Chinese from achieving too large a degree of military independence. But they will probably also feel that they have no choice but to support such development. It is probable therefore that they will continue to assist the Chinese in developing and producing certain types of modern equipment. They will also probably begin to supply such Soviet-made weapons as jet medium bombers, advanced fighters and guided missiles for air defense, and possibly short-range missiles for offensive use as well. The USSR would probably retain control over any nuclear weapons based in the territory of Communist China or other Bloc nations.

SPECIAL WEAPON DEVELOPMENTS

Nuclear Weapons

118. The USSR is known to have conducted more than 70 nuclear tests since August 1949 in its program to develop a variety of nuclear weapons. Two test series were conducted during 1958. In the first series, 13 tests were conducted at two widely separated

[10] For more detailed estimates of the personnel strength of Soviet and other Bloc forces, see Annex, Tables 1 and 2; it should be understood that these figures are only approximate and that there is considerable uncertainty inherent in this type of estimate.

proving grounds during the three months preceding the USSR's announcement of a unilateral test suspension on 31 March 1958. The Soviets resumed testing in a second series which began in September 1958. Explosions in the latest series have included two of about seven megatons, about twice the yield of the largest Soviet explosion detected previously. The latest two tests were of low yield and were conducted in the general vicinity of Kapustin Yar. From the present technical evaluation of the 1958 tests, it appears that the Soviets made further advances in the development of high yield weapons suitable for use in bombs or missile warheads. They also apparently sought to improve low yield weapons from the standpoint of size and economy of fissionable materials, probably in order to meet air defense as well as other requirements.

119. We estimate that at present the Soviet stockpile could include nuclear weapons in a range of yields from about 2 KT to about 8 MT; we do not exclude the possibility that untested bombs with yields of as much as 20 MT could be in stockpile on an emergency or provisional basis.[11] We have insufficient evidence to support a firm estimate of the numbers and types of nuclear weapons in the Soviet stockpile. There is, however, considerable evidence from the Soviet nuclear test program and from other intelligence sources, providing indications as to what types of weapons the USSR may be stockpiling and on what delivery systems it contemplates. Based on an analysis of various factors involved, we believe that:

(a) nuclear weapons, including high-yield weapons suitable for bomber delivery, are now widely deployed to Long Range Aviation units, and the Soviets will seek to provide such weapons for all bombers of this component which are designated for weapons delivery;

(b) nuclear warheads are being and will be produced in numbers sufficient to equip substantially all operational submarine-launched missiles, and ground-launched ballistic missiles of 700 n.m. range and greater;

(c) Soviet doctrine contemplates the tactical use of nuclear weapons by ground, tactical air, and naval forces, and some such weapons are probably now available for this purpose;

(d) the Soviets' emphasis on air defense will lead them to provide nuclear warheads for some proportion of their surface-to-air and air-to-air missiles, but a sizable allocation for such purposes has probably not yet been made.

120. Considering the estimated availability of fissionable materials and the level of Soviet nuclear weapons technology, we believe that at present the USSR probably possesses sufficient nuclear weapons to support a major attack by its long-range striking forces, but that current stockpiles are probably insufficient for large-scale allocation to air defense and tactical use. We estimate a substantial and high priority Soviet program for the expansion of fissionable material production through the period of this estimate, and we believe that the USSR is capable of considerable further improvement in nuclear weapons technology. Thus, by the end of the period the current limitation on the allocation of nuclear materials to air defense and tactical operations will have eased, although even then and for a longer period, limitations imposed by the availability of fissionable materials will still be felt.[12]

121. Prior to its suspension of testing in March 1958, the USSR had probably developed types of nuclear weapons which could meet most of its major requirements for such weapons. However, strong technical motivations have continued to exist for further testing, for example in the categories of lighter-weight, more efficient warheads for air defense and other purposes, higher yield warheads, and antimissile defense techniques. The USSR's reasons for conducting nuclear tests in the fall of 1958 probably included the desire to

[11] For a detailed estimate of the present and future Soviet nuclear weapons development potential, see NIE 11-2-58, "The Soviet Atomic Energy Program," 14 January 1958 (Limited Distribution). See also the forthcoming NIE 11-2-59.

[12] For estimates of present and future cumulative availability of fissionable material in the USSR, see NIE 11-2-58. For theoretical ranges of mixed nuclear weapon stockpiles, as well as illustrative stockpiles showing reasonable maximum and minimum limits for certain categories of weapons, see the Supplement to NIE 11-2-58, "Possible Soviet Allocations of Fissionable Material to Weapons Stockpiles," 1958-1962, 30 September 1958 (Limited Distribution).

fulfill technical requirements and, to a lesser extent, the desire to create a situation in which there would be increased world pressure for a ban on further testing. Considering the achievements of the Soviet nuclear test program to date and the broader advantages the USSR may feel it can achieve by negotiating a multilateral test cessation, we believe that technical requirements alone would not prevent the USSR from joining in a test ban. We also believe that if an agreed ban with a suitable control system were negotiated, the Soviets would be unlikely to attempt to carry out a concealed test or abrogate the agreement, at least for some time, but would incorporate into their weapons program such refinements as could be achieved without new test explosions.

122. Although we do not know the Soviet estimate of minimum stockpile requirements for fissionable materials, we doubt that such requirements have been met and we know that production facilities are expanding. Therefore, while the USSR might enter negotiations on cessation of weapons material production, we believe it would neither unilaterally cease such production nor agree to mutual cessation in the near future.

Guided Missiles

123. The USSR continues to press ahead with an extensive research and development program embracing all major categories of guided missiles. Soviet achievements in surface-to-surface ballistic missiles have been especially impressive, and substantial success has also been achieved in developing surface-to-air missiles. While available evidence is not sufficient to indicate comparable emphasis and success in other Soviet missile programs, we believe the USSR now has a variety of missile systems available for operational use. It is capable of developing advanced systems in all categories during the period of this estimate, and the experience it has already acquired in missile production, troop training, logistics, and deployment procedures will facilitate the expansion of its operational capabilities.[13]

124. On the basis of considerable evidence concerning the research and development program, we believe that for several years the USSR has had available for operational use surface-to-surface ballistic missiles with maximum ranges of about 100 n.m., 200 n.m., 350 n.m., and 700 n.m. It has also been developing and probably now has available for operational use a ballistic missile of 1,100 n.m. maximum range. In addition, a very short range antitank missile is probably now operational.

125. *Intercontinental ballistic missile.* Since the completion of NIE 11–5–58, we have conducted an intensive re-examination of the Soviet ICBM test firing program and its implications. On the basis of sufficient intelligence coverage to establish with a high degree of confidence the number of Soviet ICBM test firings, it is clear that over the past year this number has not been as great as we had anticipated. Nevertheless, considering the Soviets' progress in the whole field of missiles and the capabilities demonstrated in their ICBM, earth satellite, and other ballistic missile launchings, we continue to estimate that the USSR will probably achieve a first operational capability with 10 prototype ICBMs at some time during the year 1959. While it is possible that a limited capability with comparatively unproven ICBMs might have been established in 1958, we believe this to be unlikely.[14]

[13] For an extended discussion of the USSR's guided missile development program, and of factors likely to affect its acquisition of substantial operational capabilities, see NIE 11–5–58, "Soviet Capabilities in Guided Missiles and Space Vehicles," 19 August 1958 (TOP SECRET).

[14] NOTE: Some statements by high Soviet officials during the past year have indicated that the USSR already possessed, or at least wished us to think it possessed, a considerable operational ICBM capability. Such a capability cannot be ruled out as impossible if the Soviets have had a test philosophy involving fewer long-range tests and more reliance upon component tests at Kapustin Yar than we think likely. Such a philosophy would run greater risks of failure and provide less assurance of accuracy and reliability but also (if all went well) much more rapid achievement of operational capability. The Soviets may have believed the political and psychological value of ICBMs is so great as to justify extreme measures to attain a substantial and early deployment.

126. When it first becomes operational, the Soviet ICBM system will probably be capable of delivering a nuclear payload to a maximum range of about 5,500 n.m., with an accuracy (CEP) of about 5 n.m. and a reliability of about 50 percent after launching. (Some additional percentage of missiles, which we are unable to estimate, would prove unserviceable before launching.) We estimate that the Soviet ICBM is designed to carry a nuclear payload of about 2,000 pounds, although there is a possibility that it is designed to carry about 5,000 pounds. Reliability will probably be considerably improved by the early 1960's. At the beginning of the period 1962–1966, the CEP could be about 3 n.m. with radio command/inertial guidance, and could be reduced to about 2 n.m. later in that period. In 1960–1963, an all-inertial system with a CEP of 3–5 n.m. will probably be available.

127. For air defense, the USSR now has available two different types of surface-to-air missiles, one of which is employed in the fixed missile complex around Moscow and the other of which is probably suitable for employment with the Moscow system or with a semimobile system. These missiles have greatest effectiveness against aircraft at altitudes of 30,000 to 60,000 feet; they are relatively short range (15–30 n.m.) and almost certainly neither is effective at very low altitudes (below about 1,500 feet). During 1959–1961, surface-to-air systems with increased range and improved high and low altitude capabilities will probably become operational for defense of fixed targets, field forces, and naval vessels. Short-range air-to-air missiles (up to 6 n.m.) suitable for employment with currently operational Soviet fighter aircraft types are probably also available, and a longer-range missile (15–20 n.m.) will probably be developed by 1960. In 1963–1966 the USSR will probably achieve a first operational capability with a surface-to-air system of limited effectiveness against ICBMs and possibly against IRBMs.

128. For employment by submarines, the USSR probably now has available a subsonic cruise-type missile system capable of delivering nuclear warheads against land targets within about 200 n.m. of the launching submarine. These missiles could be launched by a submarine only after surfacing. In 1961–1963 the USSR will probably have available for first operational use a submarine-launched ballistic missile system capable of delivering nuclear warheads from a submerged submarine to a range of about 1,000 n.m. It is also possible that the USSR will develop a 1,000 n.m. cruise-type system for first operational use in 1960.

129. A Soviet air-to-surface missile system is now capable of carrying nuclear warheads at subsonic speed to a range of about 55 n.m. against ships and other targets clearly definable on radar. The USSR will probably have operational in 1960–1961 a supersonic air-to-surface missile with a range of at least 100 n.m., suitable for employment against a wide variety of targets.

Chemical and Biological Warfare

130. Current Soviet tactical doctrine recognizes the potentialities of CW and BW as useful complements to other weapons. Soviet military forces receive thorough training in the offensive use of CW as well as in defense against it. A stockpile of CW agents is believed to be maintained at the World War II level and may have been increased. It probably consists of the nerve agents, principally Tabun (GA) and in lesser quantity Sarin (GB), as well as standard agents such as mustard. A nerve agent of the "V" type, far more persistent and toxic than the "G" agents, may have been in production in the USSR since 1956. Research is probably also under way in the field of nonlethal, incapacitating agents.

131. The Soviets possess standard munitions for the dissemination of toxic agents by artillery shells, and it is probable that a supply of such munitions is normally carried by artillery units. CW agent dispersion by bombs and aircraft spray is also contemplated. Improved aerosol-producing devices necessary to the effective employment of "V" agents are believed to be under development. It is also possible that CW warheads have been developed for certain types of guided missiles.

132. The existence of an active Soviet BW research and development program has been confirmed, through identification of a research center and field test site as well as through extensive Soviet literature applicable to this subject. While most known Soviet research is also applicable to public health problems, we believe the Soviet program includes research on antipersonnel, antilivestock, and possibly anticrop agents. There is no evidence of the existence of a mass-production facility for BW agents, but existing plants for the production of biologicals, together with other laboratories, could easily produce BW agents in quantities sufficient for clandestine employment and probably for larger-scale use.

133. In the field of defense against BW and CW, present Soviet capabilities are at least comparable to those of the major Western nations, and in the case of CW are probably superior. Soviet troops are well-equipped with satisfactory CW defense items, many of which are also suitable for use in defense against BW. The current issue gas mask affords adequate protection against inhalation of known toxic agents, and articles of protective clothing issued to all troops afford protection against toxic agent spray and area contamination. Extensive programs continue to indoctrinate the civilian populace as well as military personnel in defensive techniques.

Electromagnetic Warfare

134. We believe that at present the USSR has an appreciable capability for jamming Western radars at frequencies up to 10,000 mc/s and possibly higher, and especially for jamming at lower frequencies normally used in Western long-range radio communications. The Soviets are now producing magnetrons and traveling wave tubes suitable for jamming in the microwave frequencies, and research in this field is continuing. They are also currently employing passive detection equipment believed capable of detecting signals from the very low frequencies up into the microwave spectrum. By 1963, the USSR will have in operational use equipment capable of jamming at frequencies from 10 kc/s through 36,000 mc/s, including all frequencies likely to be employed by Western communications, radar, and navigation equipment.

135. In recent months a trend toward greater frequency diversification in Soviet radar and radio equipment has appeared, in contrast to the earlier concentration of frequencies in a few narrow bands. The USSR is capable of further increasing the spread of frequencies employed and of developing improved anti-jamming techniques, but through 1963 Soviet electronic systems will probably still be subject to disruption by properly employed techniques.

STRENGTHS AND CAPABILITIES OF SOVIET FORCES

136. *High command.* Top control over all administrative and operational activity in the Soviet military establishment is vested in a single authority, the Minister of Defense. Directly under the Minister of Defense is a single general staff, organized along functional lines into operations, intelligence, communications, military transportation, organization and mobilization, historical, and topographical sections. The major administrative elements of the Soviet armed forces include the chief directorates of ground, air, air defense, and naval forces, each headed by a commander-in-chief who reports directly to the Minister of Defense. Operational control flows in a direct chain of command from the Minister of Defense to the commanders of the major operational elements: military districts, groups of forces, naval fleets, air defense forces, Long Range Aviation, and possibly airborne forces.

137. Despite extreme centralization of responsibility, the Soviet command system retains sufficient flexibility to effect integrated employment of all types of forces in either large- or small-scale operations. Constant attention to new requirements will bring about significant changes in armament and some realignment among components, but we anticipate no radical alteration of the Soviet high command structure in the near future. In the following paragraphs, the different types

of Soviet forces are discussed in terms of their capabilities to perform those military missions which we believe would be assigned by the Soviet high command, i.e., long-range attack, air defense, major land campaigns, and naval warfare.

Long-Range Striking Forces

138. Since the end of World War II the USSR has devoted a major effort to the development of nuclear striking forces capable of attacking distant military, industrial, and other targets, not only in and near Eurasia but in North America as well. This effort has been dictated by the fact that the US, itself possessed of long-range striking forces, lay beyond the range of traditional Soviet military power. The principal component of Soviet military strength presently capable of long-range nuclear attack is Long Range Aviation, equipped with medium and heavy bombers. The medium bombers of Naval and Tactical Aviation, as well as the light bombers of these components, contribute to the Soviet capability for attack on targets in Eurasia and its periphery. Ground-launched and submarine-launched guided missiles probably now supplement the bomber capability.

139. *Long-range bombers.* We estimate the strength of Soviet Long Range Aviation, as of 1 October 1958, at approximately 1,450 bombers, including about 400 obsolete BULL piston medium bombers, about 950 BADGER jet medium bombers, and about 100 to 125 BISON jet and BEAR turboprop heavy bombers. At least one-fourth of the BISON and BADGER regiments in this force have some aircraft of these types which are convertible tanker-bombers. Medium bombers have also been supplied to other components—there are now about 250 BADGERs and a few BULLs in Naval Aviation units and about 100 BADGERs in Tactical Aviation units.

140. The capabilities of Long Range Aviation have been markedly increased in the last five years, through the introduction of large numbers of modern aircraft, more realistic and larger-scale training exercises, improvement of potential staging bases in the Arctic, development of inflight refueling, and improvement of electronic equipment for ECM, bombing, navigation and other purposes. Nuclear weapons storage sites have been identified at many Long Range Aviation home bases, and we believe that nuclear bombs are now the primary weapons of this force. A few BADGER units of both Long Range and Naval Aviation are probably now trained and equipped to employ air-to-surface missiles suitable for use against ships and other well-defined targets.

141. Despite these improvements Soviet Long Range Aviation still consists primarily of medium bombers, best suited for operations against targets in Eurasia and its periphery, and capable of attacking the continental US only through extensive use of one-way missions. The history of the Soviet heavy bomber program leads us to believe that despite the efforts devoted to developing the BISON and BEAR, Soviet planners probably decided within the last year or two to forego a rapid build-up with present heavy bomber models. This decision may have been reached as a result of one or more of the following factors: dissatisfaction with the performance of BISON and BEAR; progress in developing new or improved bombers; confidence in Soviet ability to acquire an ICBM capability at an early date. Contributing to the decision may have been a Soviet belief that the USSR's medium bomber force, together with a small heavy bomber capability, is at least temporarily acceptable as a deterrent force, and for use against the US should general war occur.

142. The Soviets will almost certainly continue to strive for technological superiority over the US in intercontinental weapon systems. Presumably they set great store by the ICBM as posing an entirely new type of threat. But Soviet military planners almost certainly feel that even though they have good prospects of acquiring a substantial long-range striking capability with missiles, manned bombers will still be required. Manned bombers, especially advanced types, will provide the Soviets with flexibility and diversifi-

cation of attack capabilities, and will remain particularly applicable for attacks on small, hardened targets, damage assessment, and reconnaissance. We therefore believe that the USSR will retain a large force of long-range bombers throughout the period of this estimate, although its size will probably decline gradually. Its inflight refueling techniques will probably be improved and extended to a larger part of the force; however, there is no present evidence of the development of an aircraft specifically for use as a tanker. Improved electronic and other supporting equipment will probably be provided. Air-to-surface missile launching capabilities will probably be augmented as more effective missiles are developed.

143. Future projections of the strength and composition of Soviet Long Range Aviation are complicated by the fact that at present the entire Soviet medium and heavy bomber industry is in a state of transition, involving considerably less current production than a year or two ago. Production at BADGER plants now appears to be tapering off, although it will probably be sufficient to provide moderate further increases in the jet medium bomber force. The one identified BISON plant, at Moscow, has continued to produce aircraft of this type at a low and uneven rate, while its design bureau has been working to develop a new type of large bomber. A total of about a dozen BISONs have been completed since April 1958, bringing cumulative production to about 100 aircraft. While considerably less evidence is available on BEAR production, we believe it unlikely that any new BEAR bombers have been produced for well over a year, or that more than 50 to 60 were produced altogether. In the interim, the one identified producer has probably been overhauling existing BEARs, modifying some aircraft of this type for transport use, and building a few new transports of the CLEAT type (similar to the BEAR). Despite the decline in long-range bomber production, the USSR's plant capacity suitable for production of large aircraft has been considerably enlarged over the last few years, and there is some evidence to suggest that several plants are preparing to produce large bombers or transports.

144. Research and development in new bomber types has continued and we believe that it will be intensively pursued throughout the period of this estimate. Considering the demonstrated level of Soviet technology in such fields as aircraft propulsion and aerodynamics, and the normal development of these capabilities, we have estimated that within the next few years the USSR could probably place into operational units: (a) improved versions of the BISON and BADGER, at any time; (b) a new subsonic heavy bomber with range and other performance characteristics somewhat better than those of an improved BISON, in 1959 or 1960; (c) a new medium bomber with supersonic "dash" capabilities and a range approximating that of an improved BADGER, in 1960 or 1961.

145. Since none of these aircraft types would add substantially to Soviet capabilities for two-way intercontinental operations, we have reasoned that the USSR might proceed directly to more advanced types, such as a heavy bomber powered by high-energy chemical fuel, capable of supersonic speed and high altitude, or possibly a subsonic nuclear-powered aircraft capable of long endurance, even at low altitudes. We continue to estimate that some aircraft of either or both these types could probably be in operational units by mid-1963. We also believe that within the next few years the USSR could fly an airborne nuclear testbed, with at least one nuclear power unit providing useful thrust during some phase of the flight.[15] The attainment of a nuclear propulsion system for operational use in *supersonic* aircraft would probably require a long test and

[15] The Assistant Chief of Naval Operations for Intelligence, Department of the Navy, and the Director for Intelligence, The Joint Staff, believe that the USSR could fly such a testbed during 1959. The Assistant Chief of Staff, Intelligence, USAF, believes that an aircraft nuclear propulsion system could now be undergoing flight tests in a prototype airframe.

development program extending beyond the period of this estimate.[16]

146. Recent evidence of Soviet developmental efforts includes the observation at Moscow of a new bomber, designated BOUNDER, of large size and heavy weight, with a modified delta-wing configuration apparently designed for supersonic flight. With the limited information available, it has not been possible to determine the BOUNDER's intended mission, but we believe it could represent a significant step forward in Soviet bomber design. Preliminary analysis indicates BOUNDER to be powered by four turbojet engines. The use of conventional fuels would give it a range marginal for intercontinental bombing. The possibility for development of BOUNDER with a more advanced propulsion system exists, and the design intent for a nuclear-powered vehicle cannot be excluded at this time. However, present information is inadequate to permit an estimate of BOUNDER's probable development.

147. Our evidence also continues to support the existence of one or more other prototypes of new or improved long-range bombers. Past experience cautions that existing prototypes may represent competitive designs. The Soviets may not yet have evaluated such prototypes in relation to each other or to their missile programs. Such evaluation will have an important bearing on the future strength and composition of Long Range Aviation.

148. We continue to project Soviet heavy bomber and tanker strength for mid-1960 as lying within the range of 100 to 200 aircraft. The high side reflects a Soviet option to produce additional aircraft of BISON and perhaps BEAR types, and perhaps to introduce a few of a new heavy bomber into operational units. The low side reflects their option to forego a further build-up in heavy bombers through mid-1960, relying primarily on their one-way medium bomber capability against the US for at least a little longer. Our estimates of trends in Long Range Aviation beyond 1960 are more uncertain, but reflect our belief that the USSR will probably introduce new or improved intercontinental bombers during the period of this estimate. Should Soviet planners desire a large force of heavy bombers and tankers, there is no question that they could have five or six hundred BISONs, BEARs, and new heavy bombers in units by mid-1963. As indicated in the table below, however, it seems to us more likely that the heavy bomber and tanker force will remain considerably smaller than this—say, about two or three hundred, including some of new types.

149. *Intercontinental ballistic missiles.* We believe that Soviet planners intend to acquire a sizable ICBM operational capability at the earliest practicable date. However, we have insufficient evidence to judge the magnitude and pace of a Soviet program to produce

[16] See SNIE 11-58, "Possible Soviet Long Range Bomber Development, 1958-1962," 4 March 1958 (SECRET), and SNIE 11-7-58, "Strength and Composition of the Soviet Long Range Bomber Force," 5 June 1958 (TOP SECRET). For estimated performance characteristics of Soviet long-range bombers for operational use to 1961, see Annex, Table 6.

SOVIET LONG RANGE AVIATION
(Estimated Strength in Operational Units)

	1 Oct 58	Mid-1959	Mid-1960	Mid-1961	Mid-1962	Mid-1963
HEAVY BOMBERS AND TANKERS	100– 125	100– 150	100– 200	150– 250	200– 300	200– 300
MEDIUM BOMBERS AND TANKERS						
Jet	950	1,025	1,100	1,100	900	800
Piston	400	300	150	—	—	—
TOTALS	1,450–1,475	1,425–1,475	1,350–1,450	1,250–1,350	1,100–1,200	1,000–1,100

and deploy ICBMs. Considerable preparations for a build-up of operational ICBM capabilities could already have been made without detection by intelligence, as implied by Khrushchev's recent statement that the production of ICBMs has been "successfully set up." In the light of such indirect evidence as exists, we have considered those factors which would affect an operational ICBM build-up, including the Soviet capacity to produce missiles and associated equipment, and concurrently to complete launching facilities, establish logistic lines, and train operational units.

150. Taking into account the complexities of the tasks which would have to be accomplished, we believe that the Soviets could achieve an operational capability with 500 ICBMs[17] about three years after first operational capability date. Based on our estimate that a first operational capability will probably be achieved in 1959, we therefore believe that a capability with 500 ICBMs could be achieved some time in 1962. With overriding priority and exceptional success in the test and production program, this capability might be achieved in as little as two years after first operational capability date, i.e., some time in 1961. Assuming a build-up in three years from first operational capability to a capability with 500 ICBMs, a capability with 100 ICBMs[18] would be achieved in about a year and a half; assuming a two year build-up, 100 would be achieved in about a year. The achievement of operational capabilities such as these within the time periods estimated would require an extremely high order of planning and accomplishment, and would also require an increase in the average rate of ICBM firings for test and training purposes.

151. There is evidence that mobility is an important consideration in Soviet ballistic missile development generally. For an ICBM system a degree of mobility could be obtained by use of rail transport to previously prepared launching sites, some of which would have only a minimum of fixed equipment. This would provide flexibility and security through the use of relatively simple alternate launching sites which would be difficult to identify and locate. Our estimate of the Soviet capacity to acquire ICBM operational capabilities, given in the preceding paragraph, applies to either a rail-transportable system or a system of moderately hardened fixed launching sites, or a combination of the two.

152. *Other long-range ballistic missiles.* The Soviets probably consider ballistic missiles of 700 and 1,100 n.m. maximum range as contributing primarily to their capabilities to deliver nuclear payloads on distant, fixed targets in Eurasia and its periphery, although shorter-range ballistic missiles could also be employed for this purpose within their range. We estimate that nuclear warheads would be provided for virtually all missiles of 700 and 1,100 n.m. range, but we do not exclude the possibility of CW use in some 700 n.m. missiles. On the basis of available intelligence, we cannot judge the present scale of production and we have not identified any units equipped with these missiles. It is possible that at present the USSR has only a very limited capability to employ them in military operations. But considering such factors as estimated Soviet requirements, nuclear materials availability, and experience in shorter range missiles, we believe that the USSR may now have an operational capability with as many as several hundred ballistic missiles of 700 n.m. range, and with a few 1,100 n.m. missiles.

153. The wide availability of medium and light bombers capable of reaching Eurasian targets probably reduces Soviet requirements for missiles of these ranges. Since the 700-mile missile has probably been operational since 1956, we believe that the Soviets may meet their requirements for this missile early in the period of this estimate. A build-up in 1,100 n.m. missiles would take longer. Missiles of these types are probably designed for road or rail mobility. They are probably not deployed in Satellite areas at present, but some operational units may exist within the USSR.

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[17] [18] These numbers of ICBMs are selected arbitrarily in order to provide some measure of the Soviet production and deployment capacity; they do not represent an estimate of the probable Soviet requirement or stockpile.

154. *Missile-launching submarines.* A few conventional submarines have probably been converted for topside stowage and launching of 200 n.m. cruise-type missiles. The Soviets could convert a large number of existing submarines, but the problems involved lead us to believe that such conversion is not likely to be large-scale. A total of about 20 long-range submarines could be converted within 4–6 months of a decision to do so. The USSR is probably also developing one or more new types of missile-launching submarines, designed for internal missile stowage. These types will probably include ballistic missile submarines for first operational use in 1961–1963, and possibly cruise-type missile submarines at an earlier date. If the latter are in fact developed and constructed, the USSR may have about 35 submarines, some nuclear and some conventional-powered, equipped for internal missile stowage by mid-1963.

155. *Capabilities for long-range attack.* Present Soviet capabilities for attack on the continental US are limited by the relatively small numbers of operational heavy bombers, the requirement to stage most bombers through forward bases in the Arctic, and the lack of a substantial inflight refueling capability. Nevertheless, by employing their entire heavy bomber force, many of their medium bombers, and their small submarine-launched missile capability, the Soviets could mount large-scale initial nuclear attacks against retaliatory strengths and other war-making capabilities in North America. The actual weight of attack launched against the US would depend upon the Soviet judgment as to the optimum combination of surprise and weight of attack against all areas where US and Allied nuclear retaliatory capabilities and other essential targets are located. Against those Western capabilities deployed on the periphery of the Bloc, the Soviets could employ medium bombers, light bombers, and ballistic missiles with ranges up to 700 and probably 1,100 n.m. Bombs and air-to-surface missiles could be employed against Western naval forces possessing nuclear strike capabilities. All Western targets of importance in North America and overseas, as well as major naval operating areas, are within range of one or more of the Soviet weapon systems described above, although most of the Soviet bombers would have to be dispatched on one-way missions to reach targets in the continental US.

156. Soviet long-range striking capabilities will increase markedly as the stockpile of nuclear weapons grows, improved bombers are introduced, the readiness and proficiency of the bomber force increases, and especially as the Soviet capability to deliver nuclear weapons by guided missiles expands.[19] The USSR will rely increasingly upon missiles as long-range delivery systems as the period advances. While Soviet planners almost certainly recognize that ballistic missiles can impose maximum surprise and difficulty of interception, they probably consider that for some years the accuracy and payload capacity of such missiles will be inferior to those of manned aircraft of comparable ranges. We therefore believe that through the period of this estimate, Soviet long-range striking capabilities will lie primarily in a mixed force of manned bombers (probably equipped increasingly with air-to-surface missiles) and ballistic missiles. The Soviets may consider that ballistic missiles can best be employed to neutralize Western retaliatory and other capabilities temporarily in an initial blow, relying upon bombers for follow-up attacks of maximum weight. In any event, effective Soviet employment of long-range striking capabilities against Western retaliatory and other essential targets will still face great difficulties of timing and distribution of attack against widely deployed, mobile, and ready Western strengths. The USSR's missile-carrying submarines will contribute further to its capabilities, but the scale of their use in an initial attack would depend upon the Soviet judgment of the risk of premature disclosure of intent.

[19] The Assistant Chief of Staff for Intelligence, Department of the Army, does not concur in this sentence. See his footnote to paragraph 22 of The Summary.

Air Defense Forces

157. All Bloc forces useful for air defense are organized for participation in an integrated system which places primary emphasis on providing defense in depth for key administrative, industrial, and military centers within the USSR. We believe that air defense will continue to be given high priority.

158. *Air defense weapons.* The principal current weapon system for defense of Sino-Soviet Bloc targets against high-altitude attack is the high-performance jet fighter, of which there are over 14,000 in operational units throughout the Bloc. More than 10,000 of these fighters are in Soviet units, about 4,200 of them in units whose sole mission is air defense and the remainder in units with air defense as one of their primary missions. The principal day fighter in Soviet forces is the subsonic FRESCO, although about 1,200 supersonic FARMER day fighters were in units as of 1 October 1958. Also in service are the FLASHLIGHT all-weather fighter, as well as the FRESCO "D" and FARMER "B" with limited all-weather capabilities, but their introduction has proceeded at a relatively slow pace. Total Soviet strength in the FLASHLIGHT and FRESCO "D" types was about 1,730 as of 1 October 1958, with some FARMER "B" types also in operational units.

159. Most Bloc jet fighters in operational units have combat ceilings of 50,000–55,000 feet; FARMER and certain FRESCO versions probably have combat ceilings on the order of 60,000 feet. During 1959–1963 the USSR will probably introduce new day and all-weather fighter types, whose characteristics will emphasize speed and altitude at the expense of combat radius. By 1962 the latest operational Soviet fighters will probably be capable of operating at altitudes up to 67,000 feet, and of climbing to 40,000 feet in less than two minutes.[20] Air-to-air missiles are probably now available to improve the kill capabilities of Soviet interceptors, although we have no evidence that they have as yet been supplied to operational units. Total numerical strength in fighters will probably decrease after another year or two, because of the growing destructive power of individual interceptors, greater demands on industrial capacity resulting from the advent of more complex fighters, and the increasing availability and capabilities of surface-to-air missile systems.

160. Surface-to-air missiles designed for optimum effectiveness at altitudes of 30,000–60,000 feet and probably having limited effectiveness at 80,000 feet are now in operation in a dense and costly complex of 56 sites around Moscow. This complex, which could include a limited number of missiles with nuclear warheads, can probably direct a very high rate of fire against multiple targets under all weather conditions. It is probably ineffective against very low altitude attack, however. We believe the USSR may have altered an earlier intention to install a somewhat similar surface-to-air missile complex around Leningrad, and that the missile defenses of this and other critical Soviet targets will employ systems with greater flexibility and less cost than that at Moscow. There is now some evidence of the installation of surface-to-air missile sites in a few other key areas, such as Baku. We believe that more such sites will be built through the period of this estimate as improved systems for both high and low altitude defense become available, and that surface-to-air missiles will be provided for numerous Soviet fixed targets as well as field forces and naval vessels. Surface-to-air defenses in key areas will probably become effective both at very low altitudes and up to 90,000 feet during the period.

161. The Soviets continue to employ antiaircraft guns for defense of field forces and fixed targets, including airfields. More than 25,000 light and medium antiaircraft guns are believed to be available to Soviet forces at present; in addition, about 5,000 are available to East European forces and nearly 4,000 to Communist China, North Korea, and North Vietnam. Large numbers of automatic antiaircraft machine guns are also available to field forces. As suitable surface-to-air missiles become available in quantity, a large portion of the medium and some light antiaircraft guns will probably be phased out of the air defenses of static targets in the USSR.

[20] For estimated performance characteristics of Soviet fighter aircraft, see Annex, Table 9.

162. *Air defense radar and control equipment.* Radar coverage now extends over the entire USSR and East European Satellite area, except for certain inland portions of central and eastern Siberia; coverage also extends along the entire coastal region of Communist China. The long-standing gaps in radar coverage in the Soviet Arctic are now believed to have been filled, although this deployment is probably not as extensive as in many other areas. About 1,200 heavy prime radars, primarily of the TOKEN type, and about 3,000 light auxiliary radars are employed in various combinations at about 1,700 radar sites in the Sino-Soviet Bloc. Under average conditions, TOKEN radars can probably detect jet medium bomber aircraft, penetrating at altitudes up to their combat ceilings, at distances between about 80 and about 180 n.m. from radar sites. New radars of much higher quality, including radars capable of more accurate height-finding, are already in service and will probably be widely deployed during 1959–1963.[21]

163. For several years the Soviets have been developing computers and other components suitable for data-handling use. The use of such equipment will have a marked effect in increasing traffic-handling capabilities, reducing system reaction time, and improving coordination within the Soviet air defense system. For example, it is expected that data-handling equipment will increase the traffic capacity of each Soviet radar reporting site to at least 20 simultaneous tracks. We believe that an air defense system with some semiautomatic features, including a data-link system for vectoring interceptors, is being widely deployed in western USSR in association with early warning and GCI sites. This system is believed to be similar in concept to the US SAGE system, but less complex. It will probably come into use throughout the USSR and East Europe within a few years. The Soviets are also introducing a new IFF system which will probably be fully operational by 1960.

164. *Air defense concentrations.* The areas of highest concentration of Bloc air defense weapons and associated equipment include that portion of European USSR from the Kola Peninsula to the Caspian Sea, East Germany, Poland, Czechoslovakia, and the Maritime and Sakhalin areas of the Soviet Far East. High defense concentrations are also found at some specific locations outside these areas, such as Tashkent, Novosibirsk, and Khabarovsk. The approaches to Moscow are by far the most heavily defended of these areas, including (in addition to the surface-to-air missile complex mentioned above) about 1,100 day and 275 all-weather fighters as well as about 700 antiaircraft guns. We believe the Moscow defenses are a unique case, dictated by the importance of that area to the USSR.

165. *Passive defense.* Large passive defense organizations contribute to the air defense readiness of both military personnel and the civilian population. Civil defense training is a normal part of the program of DOSAAF, the Soviet paramilitary mass organization whose recruitment has been stepped up markedly in recent years. The incorporation of air raid shelters into newly constructed buildings is a program of long standing in the USSR. This program probably now affords some degree of shelter for roughly one-sixth of the urban population of the USSR, and this proportion will probably rise considerably during the period to 1963. Although most existing shelters were not designed for protection against blast from nuclear weapons, some newer building shelters are of heavier construction. It is probable that up-to-date protection is available to selected elements of the government, but the general population is inadequately prepared against large-scale nuclear attack.

166. *Air defense capabilities.* Present Soviet air defense capabilities against attack by aircraft and cruise-type missiles can be summarized in general terms as follows:

(a) Against penetrations conducted during daylight and in clear weather, at altitudes between about 5,000 feet and about 45,000 feet, capabilities are greatest.

(b) At altitudes above about 45,000 feet, capabilities would decrease progressively as altitude increased, except in the limited areas equipped with surface-to-air missiles where

[21] Estimated performance characteristics of Soviet early warning and ground-controlled intercept radars are given in Annex, Table 10.

capabilities would be unimpaired to at least 60,000 feet.

(c) At altitudes below about 5,000 feet, capabilities would decrease progressively as altitude decreased, and would probably be seriously reduced at altitudes below about 1,500 feet.

(d) Against penetrations conducted at night and under conditions of poor visibility, the capabilities of the system would be greatly reduced because of the limited availability of all-weather fighters and surface-to-air missiles.

(e) Against varied penetration tactics utilizing altitude stacking, diversionary maneuvers, decoys, and electronic countermeasures, the capabilities of the system would be diminished through disruption and saturation.

167. The amount of warning time available significantly affects the capabilities of air defenses in various areas of the Bloc. Early warning radar could now give Moscow and many other targets in the interior more than one hour's warning of attacks made with present Western bomber types. The more limited early warning time available in Bloc border areas would reduce the effectiveness of the defenses of even heavily-defended targets in such areas. As the speeds of Western delivery vehicles increase, the problem of warning time will become more critical, despite probable Soviet employment of picket ships, airborne radar and other extensions of warning capabilities.

168. Over-all Bloc capabilities against aircraft and cruise-type missiles will increase, however, through improvements in the performance characteristics of most Soviet air defense equipment and especially through the wide employment of semiautomatic air defense control. Air defense guided missile capabilities will increase. Higher-performance fighters will be employed, and the proportion of all-weather fighters in Soviet forces may increase to about 60 percent. But the Soviets will continue to have difficulty in opposing very low altitude attack and air defense electronic systems will still be subject to disruption and saturation. The USSR will probably not have an operational weapon system with even limited effectiveness against ballistic missiles until the very end of this period or later.

Ground Forces and Tactical Air Forces

169. The Soviet ground forces represent the largest part of the Soviet military establishment and are closely supported by tactical aviation, consisting of fighters trained in the ground attack role (in addition to their air defense role) and light and medium bombers trained in ground support bombing techniques. These forces are well-balanced, ably led, and equipped for the most part with excellent materiel of modern design. Units are distributed among 17 military districts in the USSR and three groups of forces in the European Satellites. The strongest concentrations are in East Germany, the western and southern border regions of the USSR, and the Maritime area of the Soviet Far East. Stockpiles maintained in these areas are believed sufficient to support large-scale ground combat operations for several months without replenishment from current production.

170. The order of battle of Soviet Army ground forces is estimated at about 175 line divisions plus supporting units. These divisions probably average about 70 percent of authorized wartime strength, although the manning level in some interior districts may be as low as 30 percent. All units probably have a high proportion of authorized officer strength, however, and full equipment is believed to be kept locally available. These peacetime manning practices, together with standard conscription and stockpiling programs, would probably enable all Soviet line divisions to be brought to full strength by M+10. Conversion to a war footing could be executed rapidly, and about 125 additional line divisions could be mobilized by M+30.

171. There has been an extensive program over the last several years to modernize and reorganize the Soviet ground forces to meet the requirements of modern warfare. More advanced designs of practically all types of equipment have appeared. The firepower of individual units has been increased markedly, additional vehicles (including amphibious ve-

hicles) have been provided, and communications equipment has been augmented.

172. A reorganization in the Group of Soviet Forces, Germany, during 1957 produced a new type of Soviet line division—the motorized rifle division—which appears well-adapted for fast, hard-hitting action. The mechanized divisions were converted to the new motorized type by removing heavy tank and assault gun units, and the rifle divisions were converted by addition of medium tanks, armored personnel carriers and rocket launcher. During the same period a resubordination of divisions resulted in the creation of "tank armies" composed exclusively of tank divisions to provide for rapid, deep exploitation in enemy rear areas. The other units remain grouped into "combined arms" armies, now composed of motorized rifle and tank divisions. We believe that similar developments have been under way since 1956 throughout the Soviet ground forces.

173. These changes are in line with revised Soviet tactical doctrine which emphasizes the need to supplement standard ground force tactics and training in order to meet the conditions of nuclear warfare. New doctrine stresses firepower, mobility and maneuverability, greater initiative, deeper objectives, intensified reconnaissance and the protection of individuals and units against the effects of atomic and chemical weapons. It also envisages the tactical use of nuclear weapons in support of Soviet field force operations.

174. Surface-to-surface ballistic missiles with ranges of 100 n.m., 200 n.m., and 350 n.m. have probably been available for operational use since 1954. We believe these missile types are intended for mobile use in support of field forces, and for attacking fixed targets such as air bases. Depending upon operational considerations and the availability of nuclear warhead materials, nuclear, HE, or CW warheads could be employed. We have only a small amount of evidence of military units equipped to launch ballistic missiles, and it is possible that at present the Soviet capability to employ them in military operations is quite small. On the other hand, the Soviets have had experience in producing missiles in the 100–350 n.m. range class, probably have an extensive production capacity, and have had ample time to train troops in their use. Very recent evidence indicates that Soviet missile units equipped with 100 n.m. missiles may have been deployed to East Germany. It is possible therefore, that the USSR's present operational capability in the 100–350 n.m. range class comprises as many as several thousand missiles, although in view of other Soviet requirements for nuclear materials it is unlikely that many would be equipped with nuclear warheads at present. Missiles of these types may now be held in the high command reserve, but as their availability increases they will probably be organically assigned to field armies. Some 700 n.m. missiles may also be allocated to the support of Soviet field forces.

175. Air support for ground operations is provided mainly by Tactical Aviation, the largest single component of the Soviet air forces. Its units are assigned to the military districts and groups of forces. Tactical Aviation has acquired at least some nuclear delivery capability. It is now equipped (as of 1 October 1958) with jet aircraft estimated to include about 4,700 fighters and 2,800 light bombers. The fighter units are predominantly equipped with FAGOTs and FRESCOs; however, the more advanced FARMER day fighter and FLASHLIGHT all-weather fighter are also in service. Tactical bomber units are still equipped with the obsolescent BEAGLE, although a few units have received BADGER jet medium bombers. Prototypes of several new fighter types and two new jet light bombers have been displayed since 1956, but none of these aircraft has been identified in an operational unit.

176. The increasing availability of nuclear weapons and guided missiles during 1959–1963 will bring further changes in equipment and organization of Soviet ground and tactical air forces and a steady improvement in their capabilities. We believe that these changes will be evolutionary in nature, and do not anticipate any major alterations in size or deployment. While nuclear weapons and guided missiles probably will be used in support of tactical operations, conventional field artillery and unguided rockets will continue to provide the major direct fire support for units in close

combat. Tactical Aviation will probably receive new supersonic fighters and bombers, but both fighters and bombers are expected to decline in numbers as increasing reliance is placed on guided missiles.

177. The USSR has sizable airborne forces, estimated at 10 divisions and a total strength of about 100,000 men. Airborne troops are well-equipped, but the air transport component has lagged far behind combat air units in the Soviet aircraft re-equipment program. Aviation of Airborne Troops now comprises approximately 500 light transports of the CAB, COACH, and CRATE types, 200 BULL medium bombers converted to transport use, 200 helicopters and 200 gliders. This strength could be augmented substantially by other military and civil transports.

178. The appearance of new transports and air-transportable equipment indicates that the USSR is now paying increasing attention to the development of its airborne forces. Soviet airlift capabilities will probably increase considerably during 1959–1963 as additional helicopters and transports are introduced. The BULL will probably be employed as an interim medium transport until late in the period, when it will have been replaced by the CAMP twin-turboprop assault transport (which has, however, not yet appeared in units) and possibly other advanced types. Better auxiliary transport will also become available as improved aircraft are introduced into civil aviation. In 1957, a number of new transports were displayed, including the CAT and COOT turboprop medium transports, a four turbojet transport designated COOKER, and a turboprop heavy transport, the CLEAT. Of these aircraft, only the COOT is now in service, and there is some evidence that technical difficulties have caused the transport program to proceed more slowly than previously estimated.[22]

Capabilities for Major Land Campaigns

179. Soviet ground forces are capable of conducting large-scale operations on several fronts into peripheral areas, separately or concurrently. These operations could be supported by the large available air forces, but the high priority assigned to air defense would limit the availability of fighter aircraft for such support operations in the initial phase of a general war. Surface naval vessels, naval aircraft and submarines would be available for operations in Bloc coastal areas in support of ground campaigns. The logistic environment is an important limitation on these capabilities, and the capacities of military transportation systems have been considered in the following estimates of Soviet offensive capabilities against selected land areas. These estimates do not take into account the effects of an initial nuclear exchange, of direct Western opposition to advancing Soviet forces, or of Western interdiction of essential logistic lines. Moreover, these are not estimates of the numbers of divisions the USSR would consider it tactically feasible or necessary to employ in the areas discussed.

180. *Against Western Europe and Scandinavia.* Without prior build-up, Soviet forces in East Germany and Poland could initiate an offensive campaign into Western Europe with 22 line divisions, half tank and half motorized, supported by about 1,400 tactical aircraft. To augment the strength of the initial attacks, a maximum simultaneous airlift of two lightly-equipped airborne divisions of 7,500 men each could be mounted by Aviation of Airborne Troops based in Western USSR. If approximately one-half of the civil transport aircraft normally in the area also participated in the airlift, the equivalent of an additional 2–3 divisions could be lifted in a one-day operation. However, we doubt that the Soviets would risk loss of strategic surprise by assembling such a large number of civil aircraft prior to an initial attack. In addition to airborne reinforcements, a maximum of four divisions could be lifted in merchant ships across the Baltic Sea. Air reinforcement could be drawn from the nearly 2,000 aircraft of Tactical Aviation units in Western USSR, and ground reinforcements from the 56 divisions in Western USSR could be brought up rapidly. Lines of communication through the northern satellites are estimated

[22] For estimated performance characteristics of Soviet transport aircraft, see Annex, Table 8.

to be capable of supporting a theoretical logistic maximum of about 160 divisions.

181. Soviet campaigns to seize Norway and Sweden could be launched from northwestern USSR through Finland and from west central Europe through Denmark. Forces immediately available in northwestern USSR consist of nine line divisions and about 2,600 tactical and naval aircraft. Operations against Norway would be limited logistically in the north to four divisions over Finnish land routes plus one water-borne division, and in the south to a maximum of five divisions water-lifted from Denmark. If Sweden were also attacked, as many as six additional divisions could be moved across Finland and a maximum of nine divisions could be ferried from Denmark to southern Sweden. Additional reinforcements might be water-lifted across the Baltic from the USSR to Sweden, and airborne forces could be used in securing debarkation facilities.

182. *Against Greece, Turkey, and the Middle East.* Forces available for operations in this area include 44 line divisions and 2,750 tactical and naval aircraft in southern and southwestern USSR. For operations west of the Black Sea, lines of communication would be adequate to support as many as 10 divisions against Greece or as many as 16 against Turkey, but not more than a total of 22 could be supported concurrently. At most, 14 of these divisions could be supported in an extension of this campaign into northwestern Anatolia, while seven divisions from the Caucasus could move against eastern Turkey. Three additional divisions could be water-lifted to the northern Turkish coast, provided that port facilities could be secured. One or two airborne divisions could be employed in the area. Lines of communication could support a force of 15–20 divisions in offensive operations against Iran.

183. *In the Far East.* The USSR has 31 line divisions, approximately 2,350 tactical and naval aircraft and sizable naval forces available in this area. These forces could renew hostilities in Korea, either alone or in conjunction with North Korean and Chinese forces. One airborne division could be employed against Japan. A seaborne force equivalent to three lightly-equipped divisions could be launched against Japan, using a mixed group of ships and other craft. Provided port facilities could be secured, fully-equipped forces equivalent to 5–6 divisions could be landed almost immediately in a follow-up operation. The same technique could be used in other areas of the Far East within range of land-based aircraft. Adverse climate, terrain and logistic environment would probably limit operations in Alaska to one airborne division and a seaborne force of about 6,000 troops.

Naval Forces

184. During the postwar years, Soviet naval forces have been greatly strengthened by an intensive building program concentrated on light cruisers, destroyers and submarines. The Soviet submarine force is the largest ever assembled by any single power; over half of its present strength consists of long-range craft of postwar design and construction. Due to a recent slow-down in the naval construction program, which included a temporary halt in submarine production, there has been little quantitative change in Soviet naval forces since last year. We estimate Soviet naval strength as of 1 October 1958 at 28 cruisers, about 140 destroyers and 80 destroyer escorts, and about 440 submarines. These totals include vessels of postwar design numbering 20 light cruisers, 110 fleet destroyers, 80 destroyer escorts, about 260 long-range submarines (18 "Z," 4 "F," and 237 "W" class) and about 35 medium range submarines ("Q" class). They are grouped in four major forces: the Northern Fleet, located in the Barents Sea area; the Baltic Fleet; the Black Sea Fleet; and the Pacific Fleet, concentrated largely at Vladivostok.

185. The surface forces are supported by Soviet Naval Aviation, which comprises more than 15 percent of total Soviet air strength and is now the second largest naval air force in the world. Approximately 3,200 aircraft are assigned to the Soviet fleets, including about 1,750 fighters, 600 jet light bombers, 250 jet medium bombers and nearly 700 miscellaneous types. The combat aircraft are the

same types as are assigned to Tactical Aviation: FAGOTs, FRESCOs, FARMERs, FLASHLIGHTs, BEAGLEs, and BADGERs. We believe that selected naval bomber units have been assigned an atomic delivery role and there is evidence of a developing air-to-surface missile capability in naval BADGER units. Lack of aircraft carriers limits the operational effectiveness of Soviet Naval Aviation to the combat radius of its shore-based aircraft.

186. The operating efficiency and equipment of Soviet naval forces, while still below US standards in some fields, are quite high and will continue to improve. The great increase in world-wide unidentified submarine contacts in recent years probably reflects the intensified training of the Soviet submarine force, particularly in long-range operations. In the naval weapons field, in addition to the development of submarine-launched guided missiles, the Soviets have vigorously pushed the production of more effective mines with magnetic, acoustic and pressure actuated firing devices. We estimate that the USSR has stockpiled mines of advanced types as well as conventional mines. It is technically capable of adapting nuclear warheads to mines, torpedoes and depth charges. Nuclear tests in the Novaya Zemlya area have probably included the testing of naval weapons. The Soviet Navy has become increasingly aware of its initial failure to keep pace with the rapid postwar technological advances in antisubmarine warfare. In recent years there has been a steady improvement in its ASW tactics and equipment and a major effort has been made in the construction of escort ships in order to overcome this deficiency. The Soviet Navy is also quite limited as to amphibious capability. To meet the lift requirements of divisional-size units the USSR would have to rely almost exclusively upon merchant ships.

187. Several important developments in Soviet naval forces are likely during 1959–1963 as a result of changing weapon systems and new concepts of naval warfare. In addition to conversion of some submarines for the launching of surface-to-surface missiles, new submarines specifically designed for this purpose probably will enter service. Some Soviet cruisers and destroyers will probably be equipped with dual-purpose surface-to-air/surface-to-surface missiles. Nuclear propulsion will be applied to submarines, and improvements in submarine hull design are expected early in the period. We believe that antisonar coatings have probably been applied to some Soviet submarines. To meet the threat from US missile-launching submarines, the USSR probably will continue to emphasize improvement of its antisubmarine warfare capability. This could include construction of new and better antisubmarine vessels including "killer" submarines, use of specialized aircraft and helicopters, development of improved detection systems (both sonar and radar) and more sophisticated antisubmarine weapons including guided missiles. Naval Aviation will probably receive aircraft of improved performance as they become available, as well as improved air-to-surface missiles.

188. *Submarine construction.* The USSR will probably continue to place primary emphasis on submarines in its naval construction program. Since 1950 the Soviets have built about 290 submarines of the medium-range "Q" class and the long-range "W" and "Z" classes.[23] Construction of "Z" class submarines ended in 1955, but the "W" class and "Q" class programs continued into 1957. Their termination probably marked the initiation of new submarine programs. A new class of conventionally-powered long-range submarine has been in production at Leningrad since the beginning of 1958. This class (designated "F") is apparently a torpedo-attack type, larger than the "Z" class and with improved sonar. Four "F" class submarines are believed to have reached operational status. Additional submarine programs believed to be under way include a nuclear-propelled type and submarines specifically designed to employ guided missiles.

189. Although the evidence is not firm, we believe that the USSR may already have commissioned one or more nuclear-powered submarines. Soviet capabilities in this field have

[23] For estimated characteristics and performance of these submarines, see Annex, Table 12.

been indicated by the development of the icebreaker Lenin, which will probably become operational in 1959. The Lenin is powered by three nuclear reactors of a type which would be suitable, with some redesign, for use in a submarine. We estimate that by mid-1963 the USSR will have about 25 nuclear-powered submarines.

190. Construction of conventional submarines will probably continue but, because of the greater complexity of nuclear-powered and missile submarines, annual submarine production almost certainly will not reach the high levels of recent years. Considering such factors as the decommissioning of obsolete boats, the possible conversion of some additional submarines to missile use, and the development of new propulsion and weapons systems, we estimate that the total force will approximate 470 submarines in mid-1963.

191. *Capabilities for naval warfare.* A grave threat to Allied naval forces and merchant shipping is posed by the Soviet submarine force, which is about eight times the size of the submarine force with which Germany entered World War II. In the event of war, Soviet submarines could conduct intensive operations against Allied sea communications in most of the vital ocean areas of the world. Mining could be undertaken on a large scale and would constitute a serious threat to Allied sea communications. This threat is greatest in waters relatively close to Soviet-controlled air and naval bases, but Soviet submarines provide a distant minelaying potential of major proportions. Soviet Naval Aviation could attack Allied naval forces, shipping and port facilities within range using bombs, mines, torpedoes and air-to-surface missiles. Soviet Long Range Aviation probably would also conduct attacks on naval targets, but its participation at the outset of a war presumably would be limited to missions of the highest priority. Although the primary threat to Allied naval forces in the Atlantic, the Pacific and the peripheral seas of Eurasia would come from Soviet submarines and aircraft, the surface navy would play a role in preventing attacking forces from operating with impunity close to Soviet shores. Naval exercises of the last several years, stressing defense of the sea approaches to the USSR, indicate a strong defensive capability in the fleet operating areas.

192. The Northern Fleet, with more than 100 long-range submarines and direct access to the open Atlantic, is considered the most formidable of the Soviet fleets. Northern Fleet submarines could deliver attacks throughout the North Atlantic and the large "Z" class submarines could operate in the Caribbean. Soviet seizure of Norway would greatly extend the submarine and air offensive capability of this force. The geographic position of the Baltic and Black Sea Fleets limits their offensive capabilities. Seizure of the Baltic exits would allow the Baltic Fleet submarine force to join in the interdiction of Allied sea communications in the North Atlantic and would increase the potential of Baltic Fleet surface forces for operations in the North and Norwegian Seas. Similarly, seizure of the Turkish Straits would permit submarines of the Black Sea Fleet to range throughout the Mediterranean and threaten Allied sea communications in that area. Submarines from both the Baltic and Black Sea Fleets might also be deployed outside of home waters prior to the initiation of hostilities. Aircraft and submarines of the Soviet Pacific Fleet could attack Allied sea communications in the North Pacific and adjacent Far Eastern waters from the outset of hostilities.

193. The capabilities of Soviet naval forces will improve steadily throughout this period with the acquisition of more advanced submarines, aircraft, and naval weapons. The principal weaknesses of the USSR as a naval power will continue to derive from the wide separation of its sea frontiers and its inability to control the sea routes between these areas, although improvements in inland waterways will increase its ability to interchange smaller vessels including submarines. The lack of adequate supply lines to its Northern and Far Eastern fleet areas and the land-locked position of its fleets in the Baltic and Black Seas are additional handicaps.

V. TRENDS IN SOVIET RELATIONS WITH OTHER COMMUNIST STATES

194. The USSR's relations with other Bloc states continue to be of pressing concern to the Soviet leaders. During the past year Moscow has moved energetically to repair the damage done to its political control and ideological authority by developments of the last several years. To this end, it sponsored an international Communist conference — heralded as the most significant in more than 20 years — broke the three-year old rapprochement with Yugoslavia, ordered the execution of Imre Nagy, held a dual CEMA and Warsaw Pact meeting in Moscow, and began publication of an international Communist periodical designed to replace the defunct Cominform journal. The Moscow conference of Communist parties in November 1957 produced a codification of nine fundamental Marxist-Leninist "laws" to which all true (Soviet-oriented) "socialist" states must adhere. It was the signal for an intensified drive against "revisionism" calculated to inhibit departures from the approved norms by member parties, especially those which might be infected by the spirit of nationalism.

195. These efforts have been intended to cope with what has become one of the fundamental problems in the Communist world: how to preserve ideological conformity and political unity. The Communist parties in the various states are confronted with quite diverse local conditions in "building socialism;" they are tempted to resort to practical expedients which have no counterpart in Soviet experience and require ideological justification in terms close to "deviationism." In addition, as parties now possessing state power they are bound to think in terms of their own state interests, not always identical with those of the Soviet state, and to show some deference to the national sensitivities of their peoples. Consequently, there are present within the Communist parties elements and factions which harbor latent or open resentment of Moscow's domination, and they are strengthened by the knowledge that within the general population anti-Soviet sentiment continues to be vigorous and widespread.

196. The tradition of the Communist movement took little account of localist proclivities or the autonomy of national parties; it was "internationalist" and centralist. This tendency was enormously reinforced during the period of Stalin's ascendancy. He rose to undisputed mastery of the Soviet party at a time when other Communist parties were weak and had little prospects of attaining power. His organizational controls, his unquestioned ideological authority made him as much the absolute dictator over them as he was in the USSR itself. Only the Chinese Communists, isolated in the interior reaches of China, established organizational and even some degree of ideological autonomy. In the postwar period, after the Communist parties gained power in Eastern Europe and China, Stalin had become a towering historic figure in the Marxist-Leninist hierarchy. Even where Moscow had other and more direct means of control over Satellite parties, its authority rested to a considerable degree on the magic of Stalin's name and myth. Only the Yugoslavs challenged his authority and survived the assault of the whole Communist world, though they had to pay the price of exclusion. The Chinese, although able to go their own way, nevertheless accepted the ideological authority of Stalin.

197. Stalin's death left a legacy in Eastern Europe of inefficient maladjusted economies and of hatred for Soviet domination; Moscow's ideological and organizational control was crippled. The confusions resulting from divisions within the Soviet leadership, Moscow's modification of Stalin's oppressive controls and policies, the attempts to redefine ideological positions under new conditions, and the partial repudiation of Stalin himself contributed to factionalism in the Eastern European parties and facilitated the overt expression of latent popular hostility to Soviet domination. Communist China, which initially at least appeared to view with sympathy the desire of

some Satellite regimes for greater local autonomy, emerged as a second ideological center within the Bloc. Since the events of 1956 in Poland and Hungary, the Communist leaders of all Bloc states, including especially the Chinese, have presumably recognized that the interests of all in the struggle against the non-Communist world depend upon preserving unity on essential issues. In Communist terms a necessary means of enforcing such unity is conformity to ideological programs. This was the point of the 12-party pronouncement of November 1957 and subsequent insistence on ideological conformity.

198. On the surface, unity has been restored and the leading position of the USSR has been re-emphasized. But the unity of ideological program was achieved by collective discussion in which at least some of the parties evidently played an independent role, however heavy may have been the weight of Soviet views in the final outcome. We believe that the front of unity — both ideologically and in terms of state policy on the international stage — will be effectively preserved for some time. But over a longer period the divergence of state interests and the need to develop policies in accordance with local conditions and nationalist sentiments will tend increasingly to dilute Moscow's control over the Communist Bloc.

Relations with the Satellites

199. The Soviet approach to the European Satellites during the past year represents, in essence, an attempt to synthesize the post-Stalin trend toward greater autonomy with the post-1956 efforts to re-establish the stability of the Bloc structure. While this has meant renewed emphasis on Soviet hegemony, it has not led to a general resumption of police terror, nor has it involved an abandonment of Soviet economic aid and equitable trade relations. Further, the Soviet leaders — though now playing down the possibility of "many roads to socialism" — still concede limited freedom of action to Satellite leaders and tolerate certain divergencies — in the case of Poland substantial ones — based on differing internal conditions.

200. The Soviet leaders thus appear to retain their belief that Stalinist methods were inefficient and dangerous; even if they should want to return to Stalinist policies toward the Eastern European Satellites, the example of Communist China's relative independence and the special position of Poland would make such a move exceedingly difficult. The Soviet leaders still have not discovered any definitive answers to the basic questions concerning intra-Bloc relations: How best to reconcile the contradictions between a policy toward Eastern Europe which is at once "soft" (designed to insure the Satellites economic and political growth) and "hard" (intended to guarantee stability and Soviet overlordship); and how best to adjust to the changes since 1953 in the USSR's position as Bloc leader.

201. With the exception of Gomulka in Poland, and possibly Kadar in Hungary, all of the Satellite leaders have responded with vigor to the Soviet call for ideological conformity and fealty to the USSR. Needing no encouragement to combat "revisionist" trends, they have been able to thwart those elements which have sought basic reforms. Moreover, their efforts to assure internal security have been successful; there has been no serious threat to the stability of any of these regimes during the past year.

202. Popular hostility to the Communist system and to the USSR has probably not been reduced, however, although there may have been some diminution in public resentment in countries where there has been a gradual improvement in living standards. Popular unrest does not appear to be an immediate problem except in Poland, where it still could lead to strikes and riots, and in East Germany, where continuing emigration to West Germany reflects active discontent and remains a seemingly insoluble problem.

203. *Prospects.* A continuation of the current pattern of Soviet policy toward the Satellites for the next few years is probable so long as outside events or developments within the Satellites themselves do not force a change. In general, the USSR is likely to limit its direct interference in Satellite affairs as much as it believes feasible, striving to give these

regimes the appearance of full sovereignty. Most of the orthodox Satellite leaders will probably be allowed to exercise day-to-day control over internal affairs, provided they retain control over their own parties and conform to Soviet-established guidelines. The fact that these leaders depend on Soviet support for their position and share many of the same interests tends to reduce the risk for the USSR in such a policy. The apparent right of Bloc leaders to speak relatively freely and frankly to the Soviets about their own problems and about intra-Bloc economic affairs will probably be maintained, although this right is undoubtedly viewed in Moscow solely as a consultative one. The renewed Soviet effort to push Bloc economic integration and to achieve a better division of labor will receive continuing emphasis. But past resistance to this program, based on the national economic interests of the individual Satellites, has been stubborn and persistent and will almost certainly not be eliminated over the next few years.

204. We believe that the recurrence of popular revolt or of an attempt by a Satellite Communist party to defy Moscow on vital issues is unlikely at least over the next few years. Such developments are possible, however, and even probable if Soviet policies should again become indecisive, or if, because of Soviet internal or foreign policy considerations, controls should be significantly relaxed. In the event of a rebellion in the Satellites beyond the capacity of the local regime to repress, the Soviet leaders would almost certainly intervene militarily. Soviet reaction to an attempt of a Satellite to secede from the Bloc would probably be the same. In the event of another Satellite party "coup" like that in Poland — aimed at greater autonomy rather than secession — the Soviet response would be dependent on the particular local and international circumstances of the moment. One of the aims of the current "antirevisionist" campaign is to prevent any disaffected inner party faction from organizing a challenge to the official leadership.

205. We believe that the Soviet Union will almost certainly maintain or increase its efforts to reduce or eliminate the distinctive features of the Polish regime. But, since Gomulka would almost certainly resist pressures on any fundamental aspects of his policies and would have the support of the Polish people in doing so, we think that the Soviet approach will be cautious. If moderate pressure proves ineffective, however, the USSR might work for Gomulka's ouster. Even in this case, we think that the USSR would resort to military intervention only if developments in Poland were likely to jeopardize the political or military security of the Bloc.[25]

206. Concerning East Germany, the Soviet leaders will almost certainly continue their campaign to build up the GDR as an ostensibly sovereign power. Internally, the political and economic weakness of the East German regime will continue to pose major problems for the Soviets. Attempts to give greater stability to the GDR through more liberal internal policies would involve political risk and would probably require greater economic subsidy from the Soviet Union, something the Soviet leaders would be reluctant to give. On the other hand, turning up the screws to enforce popular submissiveness and to make the GDR more economically self-dependent has led to the mass flight of key professionals, and may lead to other serious losses. Thus the Soviet tactical approach to the GDR regime will probably continue to show signs of vacillation and uncertainty.

Bloc Relations with Yugoslavia

207. Concern over their position as Bloc leader and prime center of Communist doctrine, and fear that the acceptance of Yugoslavia as a non-Bloc Communist power was at least potentially a serious danger to that position, were probably the principal causes of the Soviet leaders' decision to break off the rapprochement with Yugoslavia. The Soviet effort to re-establish close relations with Tito in the summer and early fall of 1957 was aimed at inducing Yugoslavia to identify itself with the Soviet camp. When it became clear — as it evidently did at the Interna-

[25] See NIE 12.6–58: "The Outlook in Poland," dated 16 September 1958.

tional Communist conference in Moscow in November 1957 — that Tito was unwilling to so align himself on Soviet terms, the break in the rapprochement was probably inevitable. The appearance of the "revisionist" Yugoslav Party program the following spring probably only helped to shape the nature and timing of the subsequent Soviet campaign.

208. For the foreseeable future, the USSR is unlikely to attempt any essentially new approach to its Yugoslav problem. The tenor of the Bloc anti-Yugoslav campaign, however, will probably vary somewhat with time and place, the greatest weight being given to it by Albania, Bulgaria, and Communist China. Moscow evidently does not intend to resume the program of development credits for Yugoslavia and will probably also hamper the normal flow of trade from time to time, while denying that these measures are intended as economic sanctions. Though it wishes to exert pressure on Yugoslavia in order to discourage independence-minded and revisionist elements in Poland and the other European Satellites, it is fearful that dramatic anti-Yugoslav measures would do real harm to Soviet relations with the uncommitted nations. However, the USSR will continue its attempts to discredit Yugoslav foreign policy, particularly in the Middle East and Asia, and will try to link Tito with the colonial powers in the minds of Afro-Asian leaders.

Relations with Communist China

209. Communist China over the past several years has emerged as a nearly-equal partner of the USSR within the Communist world. The preponderant influence is still in Moscow, but this appears to operate through discussion and persuasion rather than by the exercise of authority or control. The foundations of the alliance remain unimpaired: a common ideology, which charts the broad course of domestic developments and posits hostility toward the capitalist enemy; a mutual dependence, economic and military in the case of China, political and strategic in the case of the USSR; and a shared realization that any major disruption of the alliance would probably have catastrophic effects on the future of the entire Communist movement. We thus believe that the bases for the Sino-Soviet partnership are compelling, that the two regimes will remain closely allied over the period of this estimate, and, indeed, that neither regime is likely to believe that it could afford a break even if serious divergencies arose.

210. We also believe, however, that there are certain differences between them which have perforce led to compromises or which have been glossed over. Such divergencies are more likely to grow than to diminish over the next few years and we believe that because of them, and because of its growing power and prestige, the Peiping regime poses a potential threat to the kind of Sino-Soviet Bloc which the Soviet leaders would like to envisage for the future. Although the USSR will retain its senior position, it is possible that the process of reconciling differences between the two may increasingly involve compromises on the part of the USSR, with corresponding adjustments in Soviet policy.

211. Possible Chinese Communist differences with the USSR in policy or tactical approach — but not ultimate goals — have included the doctrinal innovations of 1956 and 1957 concerning the "100 flowers" concept and the possibility of "contradictions" between the party and the masses; and the apparent sentiment in 1956 that the USSR had overplayed its role of Bloc leader and was, in fact, guilty of "great power chauvinism." At present Peiping and Moscow may view relations with the West somewhat differently; the Chinese Communists appear to be more militant than the Soviets and less fearful of the consequences of a "high risk" policy. In addition, there have been differences at least in propaganda emphasis concerning various international questions.

212. In the future, areas of friction may arise from the general question of Communist China's influence as an ideological and political force within the Bloc as a whole. The unprecedented Chinese organization of "communes" must be a development ideologically embarrassing to the Soviets, since it implies that the Chinese are advancing toward Com-

munism more rapidly than the Soviets themselves. There may also be Soviet concern over a Chinese tendency toward "adventurism" in pushing for Communist advances, and over the role to be played by Communist China in those areas of the Far East where it has independent interests. Thus far these matters do not seem to have occasioned serious difficulty, although even if they had every effort would certainly be made to conceal the fact. Peiping has been in the forefront in proclaiming Soviet leadership of the Bloc, the USSR has acknowledged Communist China's high place in Bloc councils and its ability to make independent contributions to Marxism-Leninism, and to date Sino-Soviet interests in the Far East apparently have not clashed.

213. Problems associated with Sino-Soviet economic and military relations could also lead to friction. However, Soviet aid programs have apparently gone forward on the planned scale, and there is no evidence that the Chinese have sought more aid than they are getting; Peiping's desire for more assistance probably has been counterbalanced by its wish to limit the degree of its economic dependence. The question of nuclear weapons may be a delicate one; the Chinese have presumably sought them from the USSR, or will do so. The USSR is probably reluctant to supply them because of unfavorable repercussions on the Soviet disarmament position, the attendant loss of Soviet leverage over Communist China, and the potential military risks involved. We believe that nuclear weapons have not been given to China, but that the Soviets may make them available in the future under some form of Soviet control.

214. In sum, we believe that Communist China will attain over the next several years an increasing influence on general Bloc policy and Communist ideology. The Soviet leaders themselves are almost certainly aware of this likelihood and probably view it with concern. Moscow will wish to retain its pre-eminent position in the Bloc and, to the extent that it fears the eventual emergence of an actual rival, will attempt cautiously to minimize Peiping's influence within the Bloc. On the other hand, Peiping's growing stature strengthens the Bloc both internally and externally and in this respect is welcome in Moscow. Moreover, both partners recognize the importance of solidarity to over-all Communist objectives and realize that mutual adjustments are inevitable consequences of the alliance.

VI. TRENDS IN SOVIET FOREIGN POLICY

Introduction—The Current Conduct of Soviet Policy

216. Soviet foreign policy, over the more than five years since Stalin's death and increasingly since the consolidation of Khrushchev's personal power, has acquired certain characteristics which are important to note in gauging the threat posed to US security. Though they relate more to manner than to content, these characteristics taken together are revealing as to the development of Soviet policy in recent years, and as to the changing assumptions about the world situation which underlie it.

217. Most striking perhaps has been the fact that the conduct of Soviet foreign policy has shown itself more energetic, assertive, and rapid both in response and in seizing the initiative. In part, of course, this reflects the impress of Khrushchev's personal style of leadership, in part also Soviet consciousness of the USSR's growing military and economic power. But it also reflects the Soviet belief, first, that a more dynamic posture would be effective in the present world situation, and second, that the main struggle with the West lies at present in the world political arena, rather than at the military frontiers between the power blocs. Soviet policy has come to employ its propaganda weapons with greater aggressiveness and shrewdness, attempting to build the image of a "peace-loving" yet formidable power, confident that by so doing it can effectively alter the alignment of political forces in the world.

218. Tactical and ideological flexibility has become another hallmark of current Soviet foreign policy. The Soviet leaders have shown themselves willing to entertain a variety of new policies without regard to positions taken up earlier and have accommodated ideology more and more to the changing requirements of policy. Thus in 1956, in support of the tactics of peaceful coexistence, they undertook a major revision in Communist doctrine: they found that war with capitalist states was no longer "fatally inevitable." They also found it expedient to abandon Stalin's rigid division of the world into the socialist camp and the capitalist encirclement; instead of assuming that all countries beyond the Bloc were tools of world imperialism, they came to discriminate various shades of political alignment, even among allies of the US.

219. There has also been an extension of the scope of Soviet foreign policy. There are no longer any neglected areas in the world as there were in Stalin's time. Since 1955 the Soviet leaders have taken major initiatives in the Middle East, and have become far more active in Asia, Africa, and Latin America. The Soviet press frequently tells its readers that no longer can any issue in the world be resolved without taking account of Soviet views. Doubtless there is an element of propaganda bravado for domestic consumption in this, but it also reflects an increasing disposition to regard the USSR as now one of two great world powers, and therefore entitled to have global concerns. In situations of crisis everywhere there has been a tendency to put forward the Soviet view assertively and to refer to the factor of Soviet military power in a more blunt fashion.

220. Finally, Soviet conduct is marked by an apparently high and genuine confidence. The Soviet leaders evidently believe that, despite the many and serious problems which face them, the movement of events increasingly justifies their long-held hopes for the ultimate triumph of "world socialism" under Soviet leadership and tutelage. This mood probably reflects satisfaction with Soviet economic and scientific advances, and with the growth of Soviet military power, as well as gratification over the sharpening difficulties for Western interests in certain areas of the world. While we do not conclude that the Soviet leaders are so overconfident that they would be tempted to incautious behavior, this is one

of the hazards which might attend any striking new advance of Communist power or reversal for the West.

Current Soviet Objectives and Main Lines of Policy

221. How do the Soviet leaders view the outlook over the next several years and what are the immediate objectives which they consider feasible to pursue in moving toward an expansion of Communist power? In broad terms, they probably believe that there is an accelerating trend toward enhancement of the world power position of the Communist Bloc and a corresponding decline in that of the US and its allied states. This is the traditional view which springs from Marxism-Leninism, but which they will see as confirmed recently by their own gains in economic power, their weapons advances, and the sharp political disturbances in the non-Communist world. At the same time, they appear to believe that the strength of the Western states continues to be formidable and that it should not be frontally challenged.

222. Consequently, the main strategy of Communist policy continues to be that of reducing the Western power position by gradualist means and enhancing that of the Bloc. The Soviet leaders probably list their principal objectives over the next few years as follows: (a) reinforcing the unity of the Communist Bloc and pushing rapidly its growth in military and economic power; (b) encouraging political divisions within the non-Communist world, particularly with a view to isolating the US and constricting the deployment of its military power and the extent of its political influence; (c) seizing whatever opportunities may offer for alignment of non-Communist states with the Bloc, and, where expedient, for outright territorial expansion of Communist power.

223. The means which the Soviet leaders intend to employ in pursuing these objectives are various. As indicated, they will of course push the actual expansion of their own economic and military power base as rapidly as they can. They see this as the foundation of their policy. But they will also use all the means at their command to make it widely believed that Communist power is great and growing, that in some important respects it already outpaces the West, and that the future belongs to their kind of society and their power system. To project this image of themselves and of the world situation they will press the programs they have developed in recent years: an active diplomacy, a large-scale propaganda effort, trade and aid, and cultural exchanges.

224. *Attitude toward war.* We believe that at least for the period of this estimate the Soviet leaders will continue to put their main reliance in the struggle with the West on such political weapons. Despite the continuing growth of their military power, in particular their acquisition of growing capabilities for nuclear attack on the US, we continue to believe that they will not deliberately initiate general war. They will probably estimate that even with a lead in long-range missiles, they could not be certain of winning a general war, and that the scale of damage in such a war would threaten the survival of their society.

225. In the Soviet conception, military power should be used in the first instance and by preference as a political weapon. The enemy should be maneuvered into such a vulnerable military-political situation that he forfeits key positions without military resistance. Actual use of military power is envisaged only if there is confidence both that the gains will outweigh the losses, and that the risks are acceptable. Therefore, the immediate question posed by the growth of Soviet military power is whether the Soviets will be increasingly tempted over the next several years to use the threat of their military power more overtly and boldly as a means of pressure on the West.

226. Another serious question arises from the increasingly aggressive conduct of Soviet foreign policy on the one hand and the continuing growth of Soviet military power on the other: will the Soviets employ their own or other forces controlled by them in local military actions, estimating that the US will

be deterred from making an adequate military response by fear of general war or of adverse political consequences?

227. National Estimates have stated consistently over the last several years that the Soviet leaders would try to avoid general war and that they would seek to avoid situations which in their view involved serious risk of general war. We believe that this estimate can be reaffirmed. However, we also believe that the Soviet judgment with respect to the kind of situations which do involve serious risk may be changing. The advance of their own military power, together with the growing political vulnerability of key Western positions, will probably lead the Soviet leaders to increase their general pressure on the West and to exploit local situations more vigorously. While we have always considered it possible that Bloc forces would be used in overt local aggression if this could be done without much risk of serious involvement with Western forces, we do not believe that the likelihood of such aggression has increased. However, we do believe that the Soviets will combat more actively than hitherto the presence of Western influence in contested areas, relying upon threats to prevent the West from taking counteraction to preserve its influence. In this sense, we believe that there is currently a tendency on the part of the Soviets to view the risks of a more aggressive policy as less serious than in the past. This tendency could be reversed as a result of Western actions or as the result of a change in the Soviet leadership. But so long as this tendency persists we believe that the danger of war by miscalculation will be increased. At present, we believe that this danger is somewhat greater than our estimates in recent years have indicated.

228. *A posture for "peace."* Even if Soviet political warfare does become more vigorous and increasing pressure is applied against the West, Soviet policy will continue to garb itself with the slogans of "peace." It will not go over to an overtly and frankly aggressive posture. Rather it will continue to present itself as still striving for "peaceful coexistence" and as leading the "struggle for peace." The Soviet leaders recognize that the world-wide fear of war is so intense that great political strength is added to that side in the power struggle which can capture the force of this sentiment, and thus align large bodies of opinion with its own cause. Identification of the USSR with hopes for peace and the US with war and aggression will remain a principal aim of Soviet propaganda strategy.

229. To some extent, the desire to maintain the plausibility of this posture imposes inhibitions on the use of force; this is one reason for regarding open aggression by Bloc forces across state frontiers as unlikely. In general, Soviet leaders, believing they can continue to reap rewards with their "coexistence" tactics with little risk, are likely to view open military aggression as politically undesirable and unnecessary. Instead it will be their aim to create, mainly by political means, situations in which the West must either concede a Communist advance or resort to the use of force under unfavorable circumstances. Western concessions could then be construed by Soviet propaganda as bowing to the Soviet deterrent. If the West elected to use force, it would be compelled to do so under political and perhaps military handicaps. In either case, the Soviets would expect to intensify divisions within free world alliances and to align the uncommitted more closely with the Communist camp.

230. The Soviets will probably continue also to display an apparent readiness to engage in direct negotiations to settle outstanding issues. Proposals for high level talks will probably be renewed at any juncture the Soviet leaders find favorable to themselves. They will regard such meetings as primarily of a demonstrative character, intended not to result in freely negotiated settlements, but rather to force the Western Powers under pressure of world opinion to accede to Soviet-proposed formulas. They will attempt to pose the alternatives of "peaceful coexistence" on the one hand, or of tensions bringing a rising danger of nuclear war on the other, hoping by occasional measured reminders of the latter to stimulate acceptance of the former on Soviet terms.

231. *The underdeveloped countries in Soviet strategy.* The effort to align the USSR in apparent support of broadly held popular aspirations takes its most general form, other than in peace propaganda, in identification with various "national liberation movements." People in underdeveloped countries are being told that the USSR champions peace, progress, and national independence, while the West stands for war, reaction, and colonialism. Moscow clearly sees the underdeveloped countries—with their weak economic and political systems, strong nationalist and anticolonialist sentiments, neutralist tendencies, and resentment at past and present domination by Western European countries—as the most susceptible ground for expansion of Soviet influence at Western expense. It is this calculation which underlay the Soviet attack in recent years on Western interests in the colonies and former colonial countries of the Middle East, Asia, and Africa.

232. In part this campaign is intended to deny resources and bases in these areas to Western use. But the Communists have apparently come to believe also that it is precisely in underdeveloped and colonial areas that the best prospects for Communist advances now lie. At a minimum, they hope to bring national movements and states in these areas under Soviet diplomatic and economic influence. By thus entering into what in current Soviet parlance is called the "zone of peace" these peoples would enhance the weight of the Bloc in the world political balance. At a maximum, the Soviet leaders hope that anti-Western national movements can with native Communist participation be given a gradually more radical complexion, a process which would result ultimately in the establishment of Communist or Communist-controlled parties in power. They anticipate that rising expectations in these areas will far outrun the possibilities of fulfillment, thus giving the Communists a chance to seize the revolutionary initiative. We believe that the effort to capture a dominant position in underdeveloped areas of the world will continue through the period of this estimate to be one of the main preoccupations of Soviet policy.

233. The USSR's targets among the underdeveloped countries may shift considerably during the period under consideration, in accordance with changing opportunities and local Communist successes and reverses. Frictions between Moscow and Afro-Asians will tend to arise in many countries—as they have already arisen in some instances—as the first bloom of friendly cooperation wears off. Moreover, the basic rationale for Moscow's present collaboration with most Afro-Asian countries—their common anti-Western orientation—may even be somewhat eroded as some of the current points of difference between the rising nations and the former imperial powers diminish. At the same time, Moscow will seek out new areas for the expansion of its political and economic influence, particularly in Latin America and Africa. In those countries where its efforts are most successful, the USSR may increasingly be tempted to resort to more direct means, that is, support of local Communists in attempts to seize power. But the Soviets would carefully weigh such gains against the harmful consequences such a policy would inevitably evoke elsewhere.

234. *Trade and aid.* Soviet trade and aid programs are the economic adjunct to the strategy of penetration in underdeveloped areas. The underdeveloped countries, many of which are also politically uncommitted, are generally receptive to Soviet offers of aid and offer the prospect of high political gains in return for comparatively small economic investment. Rather than being widely dispersed, aid has been concentrated on countries which are especially susceptible to Soviet influence and also in most cases are of political or strategic interest to the West.

235. From January 1954 to June 1958 the USSR extended approximately $1.2 billion in credits to underdeveloped countries in the free world, of which $300 million has already been used. Credits and grants by other Bloc countries bring the total to more than $2 billion, of which $1.3 billion has been obligated and $740 million has been expended. About three-fifths of the total Bloc credits expended have been in the form of arms deliveries to Syria,

Egypt, Yemen, Afghanistan, and Indonesia. These same countries plus Ceylon, India, Burma, and Cambodia have received the major part of the economic aid. During the first half of 1958 there were at one time or another an estimated 3,700 Bloc technicians (including military specialists, totaling about one-third of this number) in 17 underdeveloped countries, representing an increase of more than 50 percent over the preceding six months. In magnitude these programs are relatively small compared with Western efforts on a global basis, and the burden they impose on the Soviet economy is slight, annual expenditures thus far being only a few tenths of one percent of Soviet national product.

236. *Attitude toward the UN.* To the extent that the Soviets succeed in gaining influence over the policies of underdeveloped and neutralist countries, and as the number of Afro-Asian members increases, the UN will become a more attractive forum for them. They probably expect ultimately to find issues on which they can align majorities against the US and obtain endorsement of Soviet policies. They calculate that such a demonstrative isolation of the US would disturb US-allied relations and curtail US influence in many areas. If the UN then became an issue in US domestic politics, the repercussions abroad would compound the Soviet advantage. We believe that the Soviets consider the chances for political warfare victories within the UN framework to be sufficiently promising so that they will continue to give that body major attention.

237. *Disarmament.* The Soviet leaders evidently believe that by showing an active interest in disarmament they can enhance their claim to leading in the cause of peace. More specifically, they hope to neutralize Western nuclear striking power by intensifying the stigma attached to nuclear weapons and thus inhibiting their actual or threatened use by the West. They may also believe that disarmament negotiations can help to reduce the chances of nuclear war. They will almost certainly, when circumstances seem to them appropriate, press for a continuation of such negotiations.

238. It is possible that the Soviets will conclude limited agreements in the field of disarmament, even if these involve some limitations on their own military capabilities, in order to gain what they would consider to be a net advantage. Probably they have not yet resolved on the precise shape of agreements which would meet this prescription. We believe that their deep suspicion of the West and their aversion to extensive inspection in the USSR will forbid their acceptance of any truly comprehensive disarmament scheme, and will make negotiations on even the most limited measures highly complicated and drawn out.

Soviet Policy in Particular Areas

239. *The Middle East.* This area has offered since 1955 the most striking example of the attempt by Soviet policy to support anticolonialism and nationalist movements against Western interests and influence. The USSR did not create the Arab nationalist movement, but in providing the political backing of a great power, together with substantial military and economic assistance, it has enormously increased the power and effectiveness of the movement.

240. The immediate Soviet aim is to deny this area to the West and to expand Soviet influence there, rather than to gain direct control of it. If Soviet policy can deepen the conflict between Arab nationalism and the West to the point of irreconcilability, several results follow: closer association of Arab states with the Bloc tends to alter the world political alignment in the latter's favor; Western military bases in the Arab states are eliminated; Western control of the oil resources becomes tenuous. Consequently, we believe that Soviet policy will continue to present itself in the Middle East as the friend and supporter of Arab nationalism in the latter's struggle against Western "imperialism," and more particularly, will for the present support Nasser as leader of the Arab nationalist movement. Further military and economic assistance will be made available to the United Arab Republic; UAR positions on Jordan, Lebanon, the Aden Protectorate, and other trouble spots involving Arab-Western conflict will be supported in Soviet propaganda and in the UN.

241. The Soviet leaders probably believe that at some stage the Arab nationalist movement can be given a revolutionary turn toward Communism and brought under Soviet control. They believe that a sharpening of the Arabs' conflict with the West, to which their propaganda and Communist subversive elements in the area can contribute, will facilitate this development. To the extent that such a revolutionary turn towards Communism actually takes place, the basic incompatibility of Soviet aims with those of the present leaders of Arab nationalism, whom the Communists regard as "bourgeois nationalists" playing a transient historical role, will emerge. Communist penetration and subversion of the nationalist movement may occur unevenly in different Arab countries and the Soviets may at some point be tempted to abandon their restraint and encourage a Communist takeover in some key Arab state, provided they consider the stakes high enough to compensate for the resulting damage to Moscow's relations with other Afro-Asian neutrals.

242. Insofar as Western influence is eliminated from the area the Soviets will seek to reduce Nasser's pretensions and to make him increasingly their prisoner. They will try to deny him the opportunity to pursue a truly neutralist policy in which he tries to keep lines open to both power blocs. They will seek to displace his influence over other Arab states with their own and to prevent the consolidation of Arab unity under his aegis. They will oppose his suppression of local Communist parties and try to bring these into the open as leaders of the nationalist movement. There are already some signs, in Iraq for example, that the Soviets are opposing Nasser's leadership of the Arab nationalist movement in these ways. We believe, however, that they will be extremely cautious in their efforts to undermine Nasser and, before moving openly against him, will await a time when they believe that the local Communists have captured control of the mass movement or when Nasser has so isolated himself from the West that he can no longer hope to get its support against the Soviets and the Communists. An open conflict between Nasserism and Communist expansionism seems unlikely in the immediate future, but it might develop during the period of this estimate.

243. The Soviet leaders must be aware that the Western Powers are bound to attach the highest importance to the protection of their interests in the Middle East. How do they evaluate the possibility that their pledges of support to the leaders of the Arab nationalism, who cannot be fully controlled by them, may entrain the USSR in situations of great risk? Developments in the area over the past few years have probably led Moscow to place considerable confidence in the growing effectiveness of a Soviet deterrent against Western use of force to overthrow an Arab government friendly to the USSR. The Soviet leaders probably also believe that the Western Powers in most instances would be restrained from such action by the unfavorable political reactions that would follow, both in the area and in the neutralist countries throughout Asia and Africa. Nevertheless, the intervention of the US and UK in Lebanon and Jordan demonstrated that there are circumstances in which Western powers would be willing to use military force. If the Western Powers became involved in conflict in the area, the Soviet leaders would probably not engage Soviet forces openly or take other actions which involved in their view serious risk of expanding hostilities. However, we believe that the Middle East is one of the areas where the danger of war by miscalculation has increased.

244. While Soviet policy in the Middle East is not aimed primarily at military gains, the Soviet leaders probably view the developing situation there as offering opportunities to build potential military assets. They undoubtedly calculate that in the event of Soviet military operations in this area they would benefit from their earlier peacetime introduction of military technicians, Soviet type weapons, fuel and materiel, from their increased capabilities for espionage and subversion, and from the improvements which have been made in local airfields, harbors and other facilities. The Soviet leaders probably also contemplate the eventual achievement of a long-sought Russian goal—land access to the strategic areas of the Middle East. To this end, they

will continue to encourage and support such movements as that for an independent pro-Soviet Kurdish state and for a pro-Communist government in Iraq, and will also continue pressures against Iran and Turkey.

245. *Asia.* The USSR will probably rely on its current policies—propaganda about the successes of Communism, support of national independence against Western imperialism, and offers of trade, aid, and cultural exchange—to sustain and deepen neutralism, promote pro-Soviet alignments, and gradually to erode Western influence in Asia. Further increase in the strength of the Communist parties in Indonesia and India might induce the Soviet leaders to switch to open support of them, but it is more likely, in the case of India at least, that for the next several years Soviet policy will find greater advantage in cultivating the existing governments. In Asia, it is probably these two countries which are of primary interest to Communist policy at present.

246. Policy toward Japan will probably continue along the routine line laid down over the last several years—propaganda to stimulate Japanese neutralism, disturb Japanese-American relations, and maintain pressure for denial of bases to the US. The Soviet leaders probably do not believe that they have the means to alter the situation in Japan in any important way for the present. Likewise, they probably regard the situation in Korea as stalemated, although they will continue to agitate for withdrawal of US forces.

247. Soviet policy in Southeast Asia appears to operate jointly with that of Communist China on the principle of shared influence. The Soviets will probably continue to give primary emphasis to cultivating closer relations with neutralist governments in the area. They will maintain their effort to disrupt SEATO and to align uncommitted states with the Sino-Soviet Bloc on all broad international issues. They will also stress their willingness to extend economic aid to the Southeast Asian states and will tout the value of Communist methods as the best way to achieve the economic development these countries so desperately seek. However, we believe that, should favorable opportunities arise and should they estimate that the gains would outweigh the losses, the two Communist powers might support a local Communist party in an attempt to seize power. At present, Indonesia or Laos seem the most likely places for such a development eventually to occur.

248. *Africa.* As part of its effort in the underdeveloped areas, the USSR will almost certainly increase its activities in Africa during the next five years. It is already developing diplomatic and economic relations with the newly independent states of Morocco, Tunisia, and Ghana, and is devoting somewhat greater efforts to Libya and the Sudan. It has offered trade, aid, technical assistance and, in some cases, arms. Although Soviet policy is somewhat constrained by the desire not to appear to compete too obviously with Nasser in the primarily Arab and Moslem areas in which he hopes to extend his influence, the USSR will almost certainly expand its efforts to establish its diplomatic and economic presence on the continent, to encourage nationalist and anticolonial movements, and to attempt to end the exclusiveness of Western influence in most of the area.

249. Up to the present the USSR has followed a policy of restraint toward North Africa, largely out of regard for Soviet relations with France and for the position of the French Communist Party. At some point, however, the USSR may abandon this policy. Internal developments in France or in Algeria might convince the Soviet leaders that they would gain more from open support of North African nationalism. In any case, material support may be given to the Algerian nationalists, though probably through Egypt rather than directly. Arms and economic aid offers will probably be pressed on the Tunisian and Moroccan Governments.

250. *Western Europe.* Current Soviet policy in Europe appears to be aimed more at consolidating the USSR's position in Eastern Europe than at an early expansion of Soviet power beyond the present frontiers of the Bloc. In order to achieve greater security for Communist control of Eastern Europe, as well as to weaken the position of Western Europe,

the Soviets are bound to regard the dissolution of the NATO alliance and the withdrawal of US military power from Europe as basic objectives of their policy. These are the main purposes of all their maneuvers and proposals aimed at achieving "European security." The more immediate Soviet objectives are to prevent an increase in West German military strength and the establishment of additional missile bases in Western Europe. Soviet disarmament policy and its attendant propaganda is directed largely at these targets. Moreover, the Soviet policies in the Middle East, Asia, and Africa, apart from their intrinsic importance, are themselves calculated to impose material and political losses on Western Europe and to encourage divisions there.

251. The current Soviet diplomatic offensive over the status of Berlin is the most striking example of Khrushchev's activist foreign policy. The Soviet leader must be aware that there is virtually no point of controversy between East and West on which the West has so thoroughly committed itself, and that there can scarcely be a more dangerous international issue to push to the point of crisis. In raising the issue, the Soviets have had in mind the achievement of a number of major objectives. They seek to compel the Western Powers to deal with East Germany and thus to accord at least tacit recognition to the GDR. This in turn would constitute an important step toward a ratification of the status quo in Eastern Europe, a development which the Soviets have long sought. Further, the removal of the Western presence from Berlin would permit the Soviets to handle the escapee problem and generally to reinforce the internal security of their East German Satellite. They probably further calculate that the Berlin initiative, even if only partially successful, will stimulate a more receptive atmosphere for other Soviet proposals on Germany, particularly disengagement and peace treaty negotiations. In addition, the Soviets probably expect that a serious Western retreat on Berlin would bring into question for many West Germans the desirability of the NATO alliance.

252. It is not clear why the Soviets have chosen the present moment to raise the Berlin issue, but their action is certainly in accord with the generally hardening tone of their foreign policy. This in turn is related to their growing conviction, manifest over the last year or so, that their relative power position has improved. They are presumably acting on the assumption that what they describe as "a shift in the relation of forces in the world arena" in their favor gives them an opportunity to test the solidarity of the Western Alliance over a major issue. The Soviet leaders probably intend to be cautious and tactically flexible. We believe that they will try to direct Soviet and East German maneuvering in a manner which will avoid military conflict with the Western allies, while at the same time they will be prepared to take advantage of any signs of weakness on the part of the West, or of inclinations to compromise on major issues. Nevertheless, they have already committed themselves considerably, and we believe that the crisis may be severe, with considerable chance of miscalculation by one or both sides.

253. We do not believe that the raising of the Berlin issue signalizes a Soviet willingness to move toward a settlement of the German problem as a whole on other than Soviet terms. We foresee no change at present in the USSR's adamant opposition to German reunification despite the handicaps this imposes on Soviet maneuverability in Western Europe. The Soviet leaders cannot contemplate abandonment of East Germany because of the threat which would probably develop to their whole position in Eastern Europe, beginning with Poland. Over the longer run, a major political change in West Germany, such as might develop after the death of Chancellor Adenauer, could lead to a new and seemingly more flexible Soviet and East German approach to Bonn and to the reunification problem. The Soviets probably believe that a period of political uncertainty would ensue, and that party realignments would give them new opportunities to promote West Germany's separation from NATO and the withdrawal of Allied military forces, to achieve

international recognition of East Germany, and eventually a reunification scheme acceptable to the USSR.

254. Moscow probably has come to view the Communist Parties in Western Europe more as a vehicle for propaganda and agitation than as the basis for revolutionary action, at least for the next several years. While the long-range subversive and political potential of these Parties will be cultivated, their present role is mainly to support Soviet foreign policy objectives, such as arousing popular concern against West German nuclear armament and the stationing of missiles in Europe.

255. *Latin America.* The trend noticeable in the last year of increased Soviet attention to Latin America will continue during the coming five years. The USSR apparently estimates that current economic and political differences between the US and Latin America and the elements of political instability in certain countries provide a promising opportunity to expand Soviet influence. In the immediate future, Moscow will concentrate on broadening its diplomatic and cultural relations and on trade or economic assistance offers in selective, politically sensitive situations in order to expand Soviet influence on the governmental level and to facilitate both the overt and the subversive activities of local Communists. The most significant recent Soviet economic moves in Latin America have been the conclusion in October 1958 of a $100 million credit to Argentina for the purchase of Soviet petroleum equipment (the largest Soviet credit offer extended to any non-Communist country outside the Afro-Asian Bloc), large-scale Soviet purchases of Uruguayan wool, and the conclusion of a barter deal with Brazil.

ANNEX

Tables of Sino-Soviet Bloc Military Forces

TABLE 1

ESTIMATED ACTUAL STRENGTH OF BLOC ACTIVE MILITARY PERSONNEL, 1 October 1958[1]

	ARMY GROUND FORCES	AIR FORCES (Including Naval Aviation)	NAVAL FORCES	AIR DEFENSE CONTROL AND WARNING	MILITARIZED SECURITY FORCES	TOTALS (Excluding Security)
USSR (Rounded totals)	2,650,000[2]	835,000[2,3]	765,000[2,4]	75,000	400,000	4,325,000
EE Satellites (Rounded totals)	880,000	100,000	40,000	—	300,000	1,020,000
Albania	25,000	1,500	900	—	10,000	27,400
Bulgaria	110,000	16,000	6,200	—	30,000	132,200
Czechoslovakia	170,000	23,000	—	—	45,000	193,000
East Germany	75,000	8,000	12,000	—	45,000	95,000
Hungary	100,000	5,500	—	—	35,000	105,500
Poland	200,000	34,000[5]	12,000	—	45,000	246,000
Rumania	200,000	13,500	9,200	—	60,000	222,700
Communist Asia (Rounded totals)	3,230,000	105,000	55,000	—	35,000	3,390,000
Communist China	2,625,000	87,000[6]	48,000	—	—	2,760,000
North Korea	334,000	20,000	7,000	—	—	361,000
North Vietnam	270,000	250	2,000	—	35,000	272,250
BLOC TOTALS (Rounded)	6,750,000	1,050,000	850,000	75,000	750,000	8,725,000

[1] Figures in this table are based on estimated order of battle. Estimates of this type yield approximate rather than precise measures of strength at any given time, and can lag considerably behind changes in actual strength.

[2] These figures do not include ground, naval, and air forces personnel permanently assigned to the air defense forces (PVO) with aircraft control and warning as their primary duty.

[3] For purposes of this table, an estimated 110,000 Naval Aviation personnel are included in total Soviet air forces personnel strength.

[4] Does not include KGB naval forces which in this table are carried in Soviet security forces total.

[5] Includes 2,000 naval air.

[6] Includes 8,000 naval air.

TABLE 2

ESTIMATED STRENGTH OF BLOC GROUND FORCES IN LINE DIVISIONS, 1 OCTOBER 1958 [1]

	Rifle Divisions			Mechanized Divisions			Motorized Rifle Divisions			Tank Divisions			Airborne Divisions			Total
Country	No.	TOE	Actual	No.	TOE	Actual	No.	TOE	Actual	No.	TOE	Actual	No.	TOE	Actual	No.
USSR [2]	75	13,335	8,850	40	15,415	9,800	27	13,150	9,300	23	10,630	8,300	10	9,000	7,000	175 [3]
Communist China	114	17,600	15,000							3	7,850	6,000	3	8,300	7,000	123 [4]
East Germany							5	12,500	6,000	2	10,500	6,000				7
Poland	5	11,500	8,000	7	14,000	10,000				2	11,500	7,000				14
Bulgaria	9	11,500	5,500													9
Czecho-slovakia	8	11,500	7,000	4	14,000	8,000				2	11,500	7,000	1	6,000	4,000	15
Hungary [5]																0
Rumania	12	11,500	8,000	1	14,000	8,500				1	11,500	9,000				14
North Korea	18	10,700	9,600													18
North Vietnam	14	12,640	10,250													14
TOTAL	255			52			32			33			14			389 [6]

[1] Actual strengths of divisions vary. The figures shown represent estimated averages.

[2] Additional Soviet combat units are estimated to include 20 artillery divisions, 80 antiaircraft artillery divisions, and 120 separate brigades.

[3] Estimated dispositions of Soviet line divisions: Occupied Europe, 25; Northwestern USSR, 9; Western USSR, 56; Southwestern USSR, 20; Southern USSR, 24; Central USSR, 10; Soviet Far East, 31.

[4] The total of Chinese Communist divisions includes 3 small cavalry divisions.

[5] The Hungarian Armed Forces not now considered to be effective; ground force in process of formation will amount to some 4 divisions.

[6] Estimated breakdown by major groupings: USSR, 175; Communist China, 123; European Satellites, 59; North Korea and North Vietnam, 32.

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TABLE 3

ESTIMATED ACTUAL STRENGTH OF BLOC AIR UNITS, 1 OCTOBER 1958 to MID-1963

	MID-1958			MID-1959	MID-1960	MID-1961			MID-1962	MID-1963		
	USSR	E.E. SAT	CCAF NVAF NKAF	USSR	USSR	USSR	E.E. SAT	CCAF NVAF NKAF	USSR	USSR	E.E. SAT	CCAF NVAF NKAF
FIGHTER												
Jet (Day)	8,415	2,165	1,930	7,930	6,950	5,600	2,910	1,920	4,410	3,380	2,715	1,805
Jet (A/W)	1,730	70	60	2,370	3,200	4,150	610	580	4,890	5,520	835	765
Prop	—	10	35	—	—	—	—	—	—	—	—	—
ATTACK												
Jet (Ftrs)	325	35	300	—	—	—	—	30	—	—	—	—
Prop	—	560	70	—	—	—	—	—	—	—	—	—
LIGHT BOMBER												
Jet	2,875	170	540	2,650	2,440	2,270	270	880	2,100	1,930	275	875
Prop	—	—	165	—	—	—	—	—	—	—	—	—
MEDIUM BOMBER/TANKER												
Jet	1,325	—	—	1,475	1,675	1,725	—	60	1,575	1,475	—	60
Prop	435	—	20	300	150	—	—	60	—	—	—	60
HEAVY BOMBER/TANKER												
Jet & Turboprop	100 to 125	—	—	100 to 150	100 to 200	150 to 250	—	—	200 to 300	200 to 300	—	—
TRANSPORT												
Jet (Med)	—	—	—	5	5	5	—	—	20	20	—	—
Prop (Lt)	1,670	105	210	1,465	1,455	1,440	165	330	1,440	1,400	175	330
Prop (Med)	190	—	—	275	330	360	—	15	405	440	—	40
HELICOPTERS												
Light	355	25	90	—	—	—	—	—	—	—	—	—
Medium (Large after 1958)	10	—	—	595	715	735	130	115	735	735	210	185
RECONNAISSANCE												
Jet (Ftrs)	65	30	40	—	—	—	150	75	—	—	150	105
Jet (Lt Bmrs)	490	10	20	410	395	375	40	90	360	345	40	140
Prop	145	80	10	175	220	225	30	10	225	225	30	10
UTILITY/LIAISON												
Jet (Lt Bmrs)	130	—	—	140	140	140	—	—	140	120	—	—
Prop	145	15	100	—	—	—	—	—	—	—	—	—
TRAINER												
Jet (Ftrs)	765	195	200	850	850	820	280	200	810	700	285	205
ROUNDED TOTALS	19,200	3,500	3,800	18,800	18,700	18,000	4,600	4,400	17,400	16,600	4,700	4,600

TABLE 4

ESTIMATED GEOGRAPHIC DISTRIBUTION OF SOVIET AIRCRAFT BY ROLE, 1 OCTOBER 1958

	Eastern EUROPE[1]	North-western USSR[2]	Western USSR[3]	West Central USSR[4]	Caucasus USSR[5]	East Central USSR[6]	Far East USSR[7]	Total
FIGHTER								
Jet (Day)	810	1,215	2,035	1,375	1,050	535	1,405	8,415
Jet (A/W)	145	255	425	290	240	105	270	1,730
ATTACK								
Jet (Ftr)	90	—	75	—	75	85	—	325
LIGHT BOMBER								
Jet	230	375	1,145	235	290	80	520	2,875
MEDIUM BOMBER[8]								
Jet	—	230	787	104	15	—	189	1,325
Prop	—	18	159	134	42	—	82	435
HEAVY BOMBER	—	—	40 to 50	50 to 60	—	—	10 to 15	100 to 125
TRANSPORT								
Jet	—	—	—	—	—	—	—	—
Prop (Lt)	110	180	415	375	75	40	485	1,670
Prop (Med)	—	30	130	—	—	—	30	190
HELICOPTER								
Light	20	45	100	100	5	5	80	355
Medium	—	—	—	10	—	—	—	10
RECONNAISSANCE								
Jet (Ftr)	45	—	5	—	5	10	—	65
Jet (Lt Bmr)	55	90	160	20	40	30	95	490
Prop (Seaplane)	—	50	10	—	25	—	60	145
UTILITY/LIAISON								
Jet (Lt Bmr)	50	20	30	—	—	—	30	130
Prop (Misc)	40	—	25	10	15	55	—	145
TRAINER								
Jet (Ftr)	110	117	175	106	80	36	141	765
ROUNDED TOTALS	1,700	2,600	5,700	2,800	2,000	1,000	3,400	19,200

[1] East Germany, Poland, Hungary.
[2] Northern and Leningrad MD's.
[3] Baltic, Belorussian, Carpathian, Kiev, and Odessa MD's.
[4] Moscow, Volga, Voronezh, and Ural MD's.
[5] North Caucasus and Transcaucasus MD's.
[6] Turkestan and Siberian MD's.
[7] Far East and Transbaikal MD's.
[8] Includes medium bombers assigned to Naval and Tactical Aviation.

TABLE 5

ESTIMATED DISTRIBUTION OF SOVIET AIRCRAFT BY ROLE WITHIN MAJOR COMPONENTS, 1 OCTOBER 1958

	TACTICAL AVIATION	FIGHTER AVIATION OF AIR DEFENSE	LONG-RANGE AVIATION	NAVAL AVIATION	AVIATION OF AIRBORNE TROOPS	TOTAL
FIGHTER						
Jet (Day)	3,260	3,700	—	1,455	—	8,415
Jet (A/W)	665	750	—	315	—	1,730
ATTACK						
Jet (Ftr)	325	—	—	—	—	325
LIGHT BOMBER						
Jet	2,390	—	—	485	—	2,875
MED. JET BOMBER and TANKER	115	—	960	250	—	1,325
MEDIUM BOMBER Prop	—	—	420	15	—	435
HEAVY BOMBER and TANKER	—	—	100 to 125	—	—	100 to 125
TRANSPORT						
Prop (Lt)	730	110	225	140	465	1,670
Prop (Med)	—	—	—	—	190	190
HELICOPTER						
Light	80	—	—	90	185	355
Medium	—	—	—	—	10	10
RECONNAISSANCE						
Jet (Ftr)	65	—	—	—	—	65
Jet (Lt Bmr)	410	—	—	80	—	490
Prop (Seapln)	—	—	—	145	—	145
UTILITY/LIAISON						
Jet (Ftr)	—	—	—	—	—	—
Jet (Lt Bmr)	50	—	—	80	—	130
Prop (Misc)	145	—	—	—	—	145
TRAINER						
Jet (Ftr)	365	280	—	120	—	765
ROUNDED TOTALS	8,600	4,850	1,700	3,200	850	19,200

TABLE 6

ESTIMATED OPTIMUM PERFORMANCE OF SOVIET MEDIUM AND HEAVY BOMBERS
For Operational Use to 1961

(Calculated in accordance with US Mil-C-5011A Spec except that fuel reserves are reduced to permit a maximum of 30 minutes loiter at sea level, and aircraft operate at altitudes permitting maximum radius/range)

	CURRENT MODELS				POSSIBLE FUTURE DEVELOPMENT [1]			
	BULL	BADGER	BISON	BEAR	BADGER 1958 [3]	BISON 1958 [3]	BISON 1960 [3]	MB 1960–61 [4]
Combat Radius/Range (nm)								
a. 25,000 lb. bombload	———	———	2600/4900	3750/7100	———	2750/5200	2950/5600	———
one refuel [2]	———	———	3500/6600	5100	———	3700/7000	3950/7500	———
b. 10,000 lb. bombload	1800/3300	1600/3100	2800/5500	4200/8100	1800/3400	3000/5800	3200/6300	[5]
one refuel [2]	2400/4500	2300/4200	3650/7400	5750	2400/4600	4000/7800	4300/8500	[5]
c. 3,300 lb. bombload	2050/3700	1800/3600	2950/5800	4400/8700	2000/3900	3100/6100	3300/6600	1950/3800 [6]
one refuel [2]	2750/5000	2500/4800	3700/7800	6100	2650/5200	4150/8200	4450/8900	2650/5100 [6]
Speed/Altitude (kts./ft.)								
a. Maximum speed at optimum altitude [7]	350/30,000	550/13,200	530/18,000	495/21,600	555/14,000	540/18,800	540/18,800	1085/35,000 [6]
b. Target speed target altitude [7]	310/30,000	475/40,800	460/40,900	410/41,900	475/42,300	460/43,400	460/43,400	865/47,000 [6]
Combat Ceiling (ft.) [7]	36,500	45,400	44,000	41,200	46,700	46,500	46,500	57,500 [9]
Terminal Target Altitude (ft.) [9]								
a. 25,000 lb. bombload	———	———	52,500	48,200	———	54,200	54,200	———
b. 10,000 lb. bombload	41,500	50,000	54,200	50,000	52,500	55,800	55,800	61,000
c. 3,300 lb. bombload	42,000	51,500	54,800	51,000	54,300	56,500	56,500	62,500

[1] Additional possible developments during the period of this estimate, for which no detailed performance characteristics have been estimated, are mentioned in the Discussion, Chapter IV, paragraph 144.

[2] Refueling estimates based upon use of compatible tankers which provide approximately 30–40 percent increase in radius/range.

[3] Future improvements of BISON and BADGER aircraft are based on normal expected improvements through the 1960 period; in particular, replacement of the present 18,000 lb. thrust engines with those having a thrust of about 20,500 lbs.

[4] Jet medium bomber with supersonic "dash" capability.

[5] Capable of carrying 100 n.m. range ASM, of approximately 11,000 lb. gross weight.

[6] Includes 500 n.m. "dash" at Mach 1.5.

[7] For 10,000 lb. bombload unless otherwise indicated.

[8] For 3,300 lb. bombload.

[9] Service ceiling at maximum power with one hour fuel reserves plus bombload aboard. No range figure is associated with this altitude.

TABLE 7

ESTIMATED OPTIMUM PERFORMANCE OF SOVIET LIGHT BOMBERS

	1950 BEAGLE	1951 MADGE [1]	1954 BEAGLE	1951 BOSUN	1959 MADGE (Turboprop)	SUPERSONIC [4] Tactical
Combat Radius/ Range (n.m.)	735/1,400	580/1,450	745/1,400	765/1,510	950/2,200	900 [2]/1,600 [3]
Bombload (lbs)	4,400	3,000	4,400	4,400	4,400	6,600
Maximum Speed at Optimum Altitude (Kts/ft)	460/15,000	165/SL	480/9,000	475/15,000	270/5,000	705 (Mach 1.23) /35,000
Target Speed/ Target Altitude (Kts/ft)	385/39,000	110/5,000	395/42,200	400/35,100	——	610 (Mach 1.06) /43,300
Combat Ceiling	43,800	20,200	46,900	39,500	22,000	49,400 (or 57,300 with after-burning)

[1] May also be used in antisubmarine warfare.
[2] Includes 50 n.m. supersonic dash.
[3] Includes 100 n.m. supersonic dash.
[4] Expected to become operational in the 1958–1963 period.

TABLE 8

ESTIMATED PERFORMANCE OF SOVIET TRANSPORT AIRCRAFT
(Calculated in accordance with US Mil–C–5011A Spec)

AIRCRAFT Operational Date	CAB 1937	COACH 1947	CRATE 1955	CAMEL 1956	BULL TYPE 1956	COOT 1958	CAMP 1959	CLEAT 1959	COOKER 1959	CAT 1959	TURBOJET 1960
Soviet Designation	Li–2	Il–12	Il–14	Tu–104		Il–18 (Moskva)		Tu–114 (Rossiya)	Tu–110	An–10 (Ukraina)	
Power Plants											
Number	2	2	2	2	4	4	2	4	4	4	4
Type	Piston	Piston	Piston	Turbojet	Piston	Turboprop	Turboprop	Turboprop	Turbojet	Turboprop	Turbojet
Combat Radius/Range (n.m.)	530/1215	665/1335	710/1560	900/2050	1670/3150	1500/2800	730/1440	2500/5200	1400/2900	665/1300	1800/3800
Payload											
Troops or	20	21	21	60	42	110	80	230	125	125	185
Passengers or	15	18	18	50	—	75	—	120	78	84	100
Cargo (lbs)	3300	5000	4600	23,000	25,700	27,000	20,000	55,000	30,000	30,000	45,000
Speed/Op. Alt.[1] (Kts/ft)	165/5000	220/10,000	231/10,000	580/SL	300/20,000	410/27,000	280/17,000	500/20,000	550/13,750	400/28,000	535/20,000
Cruise Speed/Alt.[2] (Kts/ft)	130/13,000	165/10,000	140/10,000	430/32,800	198/10,000	315/25,000	230/15,000	400/25,000	425/33,000	300/25,000	425/33,000
Service Ceiling	16,600	26,599	24,000	37,700	39,550	30,000	31,000	40,000	43,000	33,400	50,000
Remarks	Soviet version of DC–2			Transport design based on BADGER	Transport version of BULL		Assault Transport called Whale by Soviets	New transport based on BEAR			Prototype not observed

[1] Normal rated power.
[2] Constant altitude mission.

TABLE 9

ESTIMATED OPTIMUM PERFORMANCE OF SOVIET JET FIGHTERS[1]

(Calculated in accordance with US Mil C-5011A Spec. except that fuel reserves are reduced to permit a maximum of 20 minutes endurance at sea level and aircraft operate at altitudes permitting maximum radius)

	FAGOT Day fighter	FRESCO A, B Day fighters	FRESCO C Day fighter	FRESCO D[4] All-weather fighter	FARMER Day fighter	FLASHLIGHT A All-weather fighter	FACEPLATE[5] Day fighter	All-weather fighter	FITTER[6] Day fighter	All-weather[6] fighter	All-weather fighter
Operational	Current	Current	Current	Current	Current	Current	1958	1958	1958	1959	1962
Maximum Speed (Kts)											
Sea level	580	615	635	635	680	610	700	690	800	825	800
35,000 ft	530	550	570	570	735	540	885	860	1,185	1,150	1,440
40,000 ft	525	545	570	570	725	535	850	—	1,150	—	—
Combat Ceiling (ft)[2]	51,100	55,100	59,200	58,700	61,100	49,300	61,300	60,000	60,400	62,000	67,000
with external fuel	50,800	53,400	58,600	58,300	59,700	48,700	59,100	60,000	58,300	62,000	67,000
Combat Radius (n.m.)	290	450	380	380	290	450	215	250	140	130	200
with external fuel	490	700	640	640	655	530	610	675	480	440	—
Time to climb to[3] 40,000 ft (mins.)	7.6	7.3	4.7	4.7	2.6	7.8	3.8[7]	2.6	3.5[7]	2.2	1.7
with external fuel	8.8	10.6	6.8	6.8	7.9	8.4	6.3[7]	—	5.6[7]	5.1[7]	—
Armament Guns	2 x 23mm 1 x 37mm	2 x 23mm 1 x 37mm	2 x 23mm 1 x 37mm	3 x 23mm	2 x 23mm 1 x 37mm	2 x 37mm and	3 x 23mm and	2 x 30mm and	2 x 30mm and	2 x 30mm and	—
Rockets						76 x 55mm or 4 x 325mm or 4 x 220mm or	76 x 55mm 2 x 325mm or	76 x 55mm 4 x 325mm or	76 x 55mm or 2 x 325mm or 4 x 220mm or	38 x 55mm or 2 x 220mm or	4 x 220mm or
Guided Missiles						4 AAM	2 AAM	4 AAM	2 AAM	2 AAM	4 AAM

[1] Unless otherwise noted, performance figures are calculated with internal fuel only.
[2] Highest altitude at which aircraft can climb at the rate of 500 feet per minute with maximum power.
[3] Data shown at gross take-off weight with maximum power unless otherwise noted.
[4] FRESCO D and E have a limited all-weather capability (i.e., equipped with search radar, but without tracking capability). The E version, however, has no afterburner and has about the same performance as the A and B.
[5] FISHBED, the delta-wing version of FACEPLATE, is believed to have similar performance characteristics.
[6] FISHPOT, the delta-wing version of FITTER, is believed to have performance characteristics somewhat inferior to FITTER's. However, it is estimated that the USSR will continue to develop and improve FISHPOT as an all-weather fighter for first operational use in 1959. FISHPOT appears compatible with installation of a search-track radar.
[7] Military power (without afterburning).

TABLE 10

ESTIMATED PERFORMANCE AND CHARACTERISTICS OF SOVIET EARLY WARNING AND GCI RADARS

Type	Year in Service	Frequency (mcs.)	EARLY WARNING RADAR			GROUND CONTROL INTERCEPT RADAR		
			Detection Range (n.m.)		Altitude Coverage (ft.)	Tracking Range (n.m.)		Altitude Coverage
			Medium Bomber	Fighter		Medium Bomber	Fighter	
DUMBO	Current	70–75	50–140	35–85	70,000	50–110	40–75	60,000
TOKEN	Current	2700–3100	80–180	70–100	60,000	80–110	50–70	80,000
TOKEN/ROCK CAKE	Current	2700–3100/ 2615–2630						
KNIFE REST	Current	70–85	50–140	35–85	75,000			
GAGE	Current	2700–2800	160	100–160	80,000			
GAGE/PATTY CAKE	Current	2700–2800/ S–Band				70–90	40–60	80,000
BIG MESH	Current							
S–Band		2700–3130	170–210	100–120	80,000	100–120	80–90	80,000
L–Band		550–600	170–210	100–120	80,000			
STRIKE OUT	Current	2700–3100	170–210	100–120	80,000			
STRIKE OUT/ ROCK CAKE	Current	2700–3100				100–120	80–90	80,000
New Type	1960	up to 3000	250	100–160	100,000	150	—	100,000
New Type	1965	up to 3000	300	—	100,000	250	—	100,000

Notes: 1. All radars listed as currently operational are believed to have height-finding capabilities, with the exception of GAGE and STRIKE OUT when used in an early warning role.

2. With the exception of DUMBO, all of these radars are believed to be equipped with antijamming devices.

3. All of these current types are believed to be mobile except for the DUMBO, the GAGE and the GAGE-PATTY CAKE combination.

TABLE 11

ESTIMATED BLOC NAVAL SHIPS 1 OCTOBER 1958 — MID-1963

YEAR	1 October 1958											Mid-1959	Mid-1960	Mid-1961	Mid-1962	Mid-1963	
FLEET AREA	Baltic		Northern		Black Sea		Pacific		Total All Fleets			Total All Fleets					
COUNTRY	USSR	Sat.	USSR	Sat.	USSR	Sat.	USSR	Com. China	USSR	Sat.	Com. China	USSR	USSR	USSR	USSR	USSR	Sat. & Com. China
Major Surface Ships [1]																	
Heavy Cruisers	2	—	—	—	2	—	2	—	6	—	—	5	3	1	1	1	—
Old Heavy Cruisers	—	—	—	—	—	—	—	—	—	—	—	1	3	5	5	5	—
Light Cruisers	5	—	6	—	5	—	4	—	20	—	—	19	19	19	19	16	—
Old Light Cruisers	1	—	—	—	1	—	—	—	2	—	—	2	2	2	2	2	—
Guided Missile Cruisers	—	—	—	—	—	—	—	—	—	—	—	1	1	3	6	9	—
Destroyers	41	3	33	—	26	1	36	4	136	4	4	145	135	120	120	118	3
Old Destroyers	3	1	1	—	3	4	—	—	7	5	—	7	17	32	32	34	10
Guided Missile Destroyers	—	—	—	—	—	—	—	—	—	—	—	1	4	10	16	22	—
Escorts	12	2	19	—	16	1	34	4	81	3	4	86	91	96	101	106	7
Total	64	6	59	—	53	6	76	8	252	12	8	267	275	288	302	313	20
Submarines [2]																	
Long Range New Construction [3]	35	—	105	—	59	—	56	7	255	—	7	255	255	255	255	255	32
Long Range New Design [3] (Nonnuclear)	4	—	—	—	—	—	—	—	4	—	—	10	20	30	40	40	0
Other Long Range	5	—	13	—	—	—	2	4	20	—	4	12	7	2	0	0	0
Old Long Range	7	—	16	—	3	—	9	—	35	—	—	39	37	32	27	23	0
Nuclear (Torpedo)	—	—	—	—	—	—	—	—	—	—	—	1	3	5	9	14	—
Nuclear (Guided Missile) [4]	—	—	—	—	—	—	—	—	—	—	—	1	3	6	9	12	—
Guided Missile (Conventional Power) [4]	—	—	—	—	—	—	—	—	—	—	—	2	5	11	18	22	—
Guided Missile (Converted to Topside Stowage)	Estimate 2 (W and/or Z class) now converted. Whenever decision taken to do so, estimate Soviets could convert up to 20 of this type within 4 to 6 months.																

TABLE 11 (Continued)

YEAR	1 October 1958											Mid-1959	Mid-1960	Mid-1961	Mid-1962	Mid-1963	
FLEET AREA	Baltic		Northern		Black Sea		Pacific		Total All Fleets			Total All Fleets					
COUNTRY	USSR	Sat.	USSR	Sat.	USSR	Sat.	USSR	Com. China	USSR	Sat.	Com. China	USSR	USSR	USSR	USSR	USSR	Sat. & Com. China
Submarines[2] (Continued)																	
Medium Range New Const.[3]	33	—	—	—	—	—	—	—	33	—	—	38	43	43	43	43	—
Other Medium Range[5]	8	—	—	—	—	—	—	4	8	—	4	7	5	3	2	—	—
Old Medium Range	2	1	—	—	3	—	2	—	7	1	—	7	6	6	6	8	1
Short Range[5]	26	6	—	—	5	3	19	4	50	9	4	47	47	47	42	33	13
Old Short Range	3	0	3	—	13	3	12	1	31	6	1	29	21	12	12	19	6
Total	123	7	137	—	83	6	100	20	443	16	20	448	452	452	463	469	52

[1] In addition to the major surface ships shown, we estimate in mid-1958 there were 1,980 minor surface ships in the Soviet service, and 599 in the Satellites and Communist China. Minor surface ships include amphibious, mine warfare, and patrol ships. "Old" surface ships are those more than 20 years old.

[2] "Old" submarines are those 14–20 years old.

[3] Conventional submarines of post-World War II design and construction, including "W," "Z," and "F" Class long range, "Q" Class medium range, and a new medium range submarine.

[4] New Soviet submarine programs now under way will probably include ballistic missile submarine systems, and possibly also submarines designed for internal stowage of cruise-type missiles. While there is little evidence on the progress of such programs, the figures given here take account of both possibilities. For further information as to types, see Chapter IV, paragraph 154.

[5] Submarines older than post-World War II but less than 14 years old.

TABLE 12

ESTIMATED CHARACTERISTICS AND PERFORMANCE OF SOVIET "Z," "W" AND "Q" CLASS SUBMARINES

Class	Length/ Beam (ft)	Displacement (tons) Surfaced/Submerged	Diving Limit (ft)	Armament Torpedo/Mine	Performance — Speed (Kts)/Endurance (n.m.)	Surfaced	Snorkeling	Submerged	Operation Radii * n.m./days on station
"Z" (Long range)	290/26	1950/2290	650	24/48	Maximum	16/6900	11/7100	17/8.5	6600/1
					Cruising	10/17,200	8/12,400	3/108	6000/17
"W" (Long range)	240/22	1300/1450	650	14/26	Maximum	15/6000	11/5100	16/8	4500/1
					Cruising	10/12,000	8/8300	4/144	4000/16
"Q" (Med. range)	165/17	400/465	450	8/12	Maximum	16/1700	12/1300	15/7.5	1500/1
					Cruising	4/4600	8/2500	4/144	1000/15

* These radii are based upon the following arbitrary patrol conditions: Each day of transit consists of 12 hours of surface running at 10 knots during hours of twilight and darkness and 12 hours of snorkel running during the day at 8 knots. Fuel consumption on station is based upon submerged running at 3 knots with sufficient snorkeling to maintain batteries.

TABLE 13

ESTIMATED COMPOSITION OF BLOC MERCHANT FLEETS MID-1958 and MID-1963
(Ocean-going vessels, 1,000 GRT and up)

	Mid-1958						Mid-1963					
	Non-tanker			Tanker			Non-tanker			Tanker		
	No.	GRT	DWT	No.	GRT	DWT	No.	GRT	DWT	No.	GRT	DWT
USSR	707	2,426,308	3,089,535	95	546,768	816,039	972	3,701,620	4,657,860	141	915,718	1,369,634
EE	120	493,271	682,961	5	31,872	48,355	171	707,471	961,421	13	110,930	166,942
China	120	313,941	350,357	8	11,394	13,821	146	398,903	477,797	17	44,694	57,821
Total	947	3,233,520	4,122,853	108	590,034	878,215	1,289	4,807,994	6,097,078	171	1,071,342	1,594,397

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